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AND GARDENER'S JOURNAL.

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TERMS,

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EXPLANATION.—Mr. Colman has of necessity been absent during the last half of the past month, for the purpose of closing some business in Massachusetts and removing his family to Rochester. He is expected to return about the 15th inst.

For the New Genesee Farmer.

The Mild Winter and Early Spring.

It has been observed that mild winters have occurred at regular distances of 26 years, as follows:—1686, 1712, 1738, 1764, 1790, 1816, and 1842. The mildness of last winter was a subject of constant remark, particularly among the farmers, who observe the peculiarities of the seasons with more interest, perhaps, than any other class of citizens. This led me to compare the monthly temperature of the corresponding months of the last three winters, viz: 1840, '41 and '42.

Dec.	1840,	monthly	mean,	25,37 degrees.
"	1841,	"	"	30,60 "
Jan.	1840,	"	"	19,48 "
"	1841,	"	"	27,94 "
"	1842,	"	"	29,64 "
Feb.	1840,	"	"	32,17 "
"	1841,	"	"	24,27 "
"	1842,	"	"	31,03 "

The mean temperature of the winter 1841, 25,86 deg.
" " " " " 1842, 30,40 "

The mercury in the Thermometer did not fall to zero last winter; the lowest, Jan. 21, being 5 degrees above zero.

Farmers, I think, will recollect how exceedingly cold the month of March was, 1841,—mercury five degrees below zero, the 17th; ten degrees lower than at any time last winter.

March, 1841, monthly mean 28,95 degrees.
" 1842, " " 39,77 "

A difference of about 11 degrees.

It will be observed that March, 1841, was colder than either January or February, 1842.

First ploughing, February 12th.

Spring birds made their appearance much earlier this spring than last. Robins, blue-birds and pigeons, were seen March 31. Frogs were heard, and the earth-worm came above the surface at this date.

Bugs and flies were seen in the woods February 3d; also, a grasshopper and musquetoes in the city.

Vegetation is also much earlier than last spring. Violets were in blossom Feb. 5th in the open garden; Lilacs and shrubbery leaving. One soft maple in blossom March 4th, and covered with honey bees, and many in blossom March 21th, also common elm; apricot in blossom, April 10th; peach and cowslip (caltha) 15th; plum, 19th; shepherds-purse, 20th; English cherry, 23d; hard maple, shad bush, (Aronia Botryapium) and strawberry, 23d; currants, 24th.

Last year cherry and peach began to blossom May 21st; thus you observe that they are more that a month earlier this spring; and so of vegetation generally. Wheat and grass look very fine.

April 22d was a very warm day; the mercury in the Thermometer stood at 82 degrees in the shade, and 88 in the sun.

NOTE.—There was but little snow here last winter, but frequent rains, and some very heavy thunder showers; the first Jan. 29th.

The quantity of rain and melted snow during the winter ending Feb. 1842, 5,78 inches; do. 1841, 4,27 inches.

The harbor at the mouth of the Genesee river was clear of ice February 1st, and the 6th the river was very high, from the melting of the snow on the southern hills. Last year it was uncommonly high March 31st.

METEOROLOGICAL OBSERVATIONS,

MADE AT THE ROCHESTER COLLEGIATE INSTITUTE BY L. WETHERELL, APRIL, 1842.

Date.	Thermometer. Sunrise.	1 o'clock, P. M.	1 h. aft. sunset	Mean.	Winds. A. M.	Winds. P. M.	Weather. A. M.	Weather. P. M.	Rain Guage
1	22	38	32	35,16	W.	N.W.	fair	fair	
2	49	70	62	59,83	S.W.	W.	fair	fair	
3	46	46	43	43,	N.E.	N.E.	rain	rain	
4	34	43	41	42,66	N.E.	E.	rain	rain	
5	48	50	44	44,83	S.W.	S.W.	cl'dy	cl'dy	,92
6	33	53	42	44,	N.W	N.W.	fair	cl'dy	
7	41	44	39	40,33	N.E.	N.E.	rain	rain	
8	35	35	34	34,5	N.E.	N.E.	rain	cl'dy	,49
9	31	40	39	38,16	N.	N.	rain	cl'dy	
10	33	65	55	52,	S.	S.W.	fair	fair	,05
11	39	65	50	51,33	N.W	N.W.	fair	fair	
12	39	46	42	42,83	N.	N.E.	cl'dy	cl'dy	
13	36	48	44	42,16	S. E.	S.E.	cl'dy	rain	
14	33	52	40	43,16	W.	W.	fair	fair	,37
15	36	48	40	40,5	N.W	N.W.	fair	fair	
16	31	46	34	37,16	N.	N.	fair	fair	
17	32	50	45	43,66	N.E.	N.E.	fair	cl'dy	
18	40	46	43	43,5	E.	E.	rain	cl'dy	
19	43	46	46	44,5	E.	N.	cl'dy	cl'dy	,35
20	40	60	55	52,33	N.W	N.W.	fair	fair	
21	41	72	65	62,83	S.W.	S.W.	fair	fair	
22	59	82	65	65,5	S.W.	W.	fair	fair	
23	40	45	40	41.16	N.	N.	fair	fair	
24	37	50	48	45,83	E.	N.E.	fair	fair	
25	42	57	49	50,66	N.	N.	fair	fair	

Mean, for the first half month, 43,63 degrees.
" corresponding half, 1841, 34.90 "

Agricultural Fairs, for 1842.

The Monroe County Agricultural Society will hold their annual Cattle Show and Fair at Rochester, on Thursday and Friday, the 13th and 14th of October next. (The list of premiums, by-laws, &c., will be printed and circulated as soon as they can be prepared.)

The Ontario County Agricultural Society have advertised that their Fair and Cattle Show will be held at Canandaigua, Wednesday and Thursday, October 12th and 13th, but it is proposed to alter the time one day and hold it on Tuesday and Wednesday, 11th and 12th, so as not to interfere with the time of the Monroe Society. (The list of premiums, by laws, &c., have been printed and circulated throughout the county.)

The Livingston County Agricultural Society will hold their next Fair and Cattle Show at Geneseo, on Tuesday, the 4th of October. (Preminm lists have been circulated.)

The Oneida County and Seneca County Societies have both advertised to hold their Fairs on Tuesday and Wednesday, October 11th and 12th, the same time as the Ontario county. It is greatly to be regretted that there should not be some mutual understanding among the Societies in the vicinity of each other, so that the days of their shows and fairs should not be the same. It would gratify many of the members to visit each others shows. In this way substantial good might be done and much pleasure given; emulation would become more spirited; the pleasant intercourse of farmers would be extended, and useful information imparted and received. This ought to be arranged at the meeting of the State Society by the different delegates. It is not too late now to arrange it by mutual consultation. There is still plenty of time to circulate notices. (We intend in our next to give a full list of the days and places of as many Societies as will send us the requisite information.) As far as it can be done, delegates should be sent from one society to another, to attend the Fairs, and thus strengthen and extend the bonds of good fellowship. "Our interests are one and indivisible."

Cauliflower.

Our success in the culture of Cauliflowers until the last year, has been equal to our desires, and they are not very small when so good an article is sought for, and the failure of '41 we attribute mainly to *worthless and defective seed*, as from the first paper we sowed, only a half a dozen vegetated, and from the second none at all, which gave us rather a limited supply of plants. The seeds of both papers, one of which was labelled at an establishment in Chautauque county, were very shrivelled and imperfect, having the appearance of being gathered prematurely, as we have no doubt they were. Now this is *too bad*. It is a down right outrage upon the public to offer even under hand and *seal* such seeds in market. The state of public mind is such, with regard to the culture of rare and delicious plants, that if some sort of success does not attend their exertions, their efforts will cease, and our seed establishments will go where the cauliflower seed we bought last year ought to have gone, instead of coming to market—*to the bugs*.

When good seed is obtained they are raised as easy as cabbages, will flourish on the same kind of soils and require the same culture. They are superior in taste and healthfulness to any of the cabbage family.

W. B.

W. R. Smith of Macedon, Wayne Co., had a plough in full motion by the 4th of March, and one team had, by the 23d, ploughed about fifteen acres.

AGRICULTURAL ADDRESS.

We publish with pleasure the following valuable address, delivered February 1st, before the Cayuga County Agricultural Society at Auburn, N. Y., by David Thomas of Aurora. Mr. Thomas is well known to the readers of the New Genesee Farmer as one of its most frequent and instructive correspondents, and for two years a co-editor of this journal. We cannot say we assent to several of the positions taken in this address; first, because several of them relate to matters which are at present obscure and unsettled; and second, because some of them are not confirmed by our own observation and experience. But we do not like the address the less for this reason. We cannot be supposed, because we publish them, to endorse the opinions of our correspondents or of others. This we beg to say, once for all, is never to be assumed or inferred; but we do as little hold ourselves infallible, and are always desirous in all cases "to hear the other side." Mr. Thomas thinks for himself and has a mind of his own. We like him all the better for this. We should be sorry to have every body agree with us; or ourselves to agree with every body else. This would be very dull work; and put an effectual stop to all inquiry, and consequently to all intellectual progress. This would make the waters of life stagnant and putrid. They might be radiant and beautiful on the surface; but all their freshness and spirit would be gone, and who would wish to drink of them. We value books, discourses, sermons, addresses, &c., for two reasons; first, when they convey some useful knowledge or information; second, when by their original and independent thought, whether we acquiesce in their truth or not, they set our minds in vigorous operation. But how few are of this character, or any thing more than the stale repetition of matters, which every school boy has by rote. When an independent thinker, therefore, utters his convictions, be they ever so distant from our own, we always listen with pleasure; but when one of your parrots gets up, who never spread his wings nor ever learnt to say anything but what he heard other people say, and looks as grave as an owl, and then shakes his head as though there were something in it, and with wonderful parade of learning, informs us, for example, "that the light of the moon being reflected is not quite so intense as that of the sun, and that water is a fluid and the tendency of all fluids is to run down hill, and so on," we confess we are sorry to say that whether at home, or, if we must tell all, at church either, we are so overpowered with admiration or something else, that we have great difficulty in keeping awake.

Cayuga Co. Agricultural Society--Address.

Geologists inform us that soils were chiefly derived from the wear and tear—the disintegration and decomposition of solid rocks. In some tracts of country, the soil is nearly identical with the rock that immediately underlays it, or partakes largely of its nature; but such occurrences are rare in this country. So extremely active was the deluge that swept over and rounded our highest hills, that many a square league of stony strata was entirely buried by materials that drifted from other parts of the country, and which have no resemblance to the rocks they cover.

Favorably for the southern parts of our county, that deluge came from the north, sweeping over a limestone region, and depositing in its course over our barren state, the rich collection it had made. And here let us stop to consider: if that flood had come in an opposite direction, bringing along the unproductive detritus of the mountains, instead of our fertile fields, and flocks and herds, we might have witnessed nothing more inviting than scrub oak plains, and a few wandering deer.

Like other floods, however, its deposites were irregular, as its velocity was increased or retarded—as it whirled into eddies, or rushed onward in its course. Pure clay indeed, can scarcely be found in this formation; but all the varieties of loam, whether clayey, sandy, or gravelly, occur; and some deep beds of both sand and gravel, are so pure as not to discolor the water into which they are thrown.

Such instances, however, are rare; and the grinding and mixing of so many substances by that deluge, have been eminently beneficial to our farms. No soil is fertile, says Humphrey Davy, "that contains as much as 19 parts out of 20, of any one material or constituent. On the contrary, soils that contain mixtures of many things, are generally very fertile,—provided that clay, lime, and sand, form a large share of the mass. When you see, therefore, old mortar, the sweepings of the smith shop, or leached ashes thrown into the highway, you may safely conclude that the owner is greatly in want of instruction. These are excellent manures, and permanent in their effects.

Perhaps some would ask, why are different things necessary to constitute a fertile soil? Allow me to answer in the language of Dr. Jackson's Geological Report on Rhode Island: "Caemical science arranges all bodies as electro-positive, or electro-negative. The electro-positive are always the alkaline or basic substances, while the acids are always electro-negative when brought in contact with matters of the positive class. If a soil is wholly positive or negative in its nature, it fails to be fertile; and when one power greatly predominates over the other, it is not in its most favored condition. Silex is regarded as an acid, and alumina, lime, magnesia, iron, and the alkalies, are its opposites."

According to this view, the soil may be considered as a vast galvanic battery. "It is rendered nearly certain," says an eminent writer, "that manures act by the salts they contain, acting when brought in contact with the earths in producing galvanic currents," and of course stimulating the plants in their growth. On this subject, however, I give no opinion of my own, because I can comprehend much more clearly, the neutralizing effects of acids and alkalies, and the absorbent powers of the different materials. This view may regulate our practice quite as well as the former; and indeed there seems to be nothing discordant between them.

It is not many years since the existence of acid soils was denied, or overlooked. The talented editor of the Farmer's Register in Virginia, was the first to point out the error or oversight; and the subject is now better understood. He furnished no evidence indeed of the presence of uncombined acid; but the circumstantial evidence was very strong and pointed; and in my judgment he fairly made out his case. Since the publication of his "Essay on Calcareous Manures," other writers of great respectability, have either adopted his views, or furnished additional and positive proofs of their correctness

The question may occur, why is not an acid soil as fertile as any other? It is more fertile than any other for such plants as the Red Sorrel; but not for the plants which are the chief objects of the farmer's culture. These generally require a neutral soil—that is, one in which lime under some form or other, occurs in considerable quantity.

Although clay, according to Dr. Jackson's classification, is arranged as an alkaline earth, yet as such, it is so feeble that when united with *silica* or sand alone, the mass becomes acid, and unfitted for our usual crops. On such lands, Indian corn assumes a yellow sickly aspect, even when it is not injured by stagnant water. And what is the cure? Apply lime enough, and then, says an accurate observer, "the young corn takes immediately a deep, healthy color, before there is any perceptible difference in size. The crop will produce from fifty to one hundred per cent. more the first year, before its supply of food can have possibly been increased." And why? Because the poison which has paralized it, was destroyed.

It is well known that when magnesia occurs among quick-lime, it is often injurious to the land. Such a mixture is called *hot lime*, from its burning alkaline quality,—the magnesia not combining so speedily as lime does, with carbonic acid, which would render it mild. Besides, the lime, having a stronger attraction for that acid, will either be served first, or take it from the magnesia till it has got enough. I have seen spots of earth, where large heaps had been thrown down to slack, remain barren—as free from vegetation as this floor—for two or three years, although the ground had been carefully scraped over when the heap was removed.

Yet such is the stuff to which the south eastern part of Pennsylvania owes much of its fertility. Formerly, when I lent a hand to that process, it was considered that 30 or 40 bushels to the acre were as much as the land could bear without injury. It was found, however that rich land would bear more than poor land; and in process of time they discovered that 100 bushels to the acre might be safely and profitably applied to pastures or meadows. The lime was slacked in large heaps; and then from a cart or wagon on a calm day, it was scattered with a shovel evenly over the grass. It fell among the decaying leaves which in warm weather yield carbonic acid, and it became mild without injuring the crop.

Some years ago, I published an account of this simple method, believing it superior to that of any other country, and you may judge of my surprise to see it stated in a work of high authority, bearing the date of 1840, that magnesian limestone is unfit for the purposes of agriculture!

Lime, however, possesses other properties besides that of neutralizing acids. One of the most remarkable is the power to absorb putrescent manures; and to hold the fertilizing essence till it is wanted by the crop, through every vicissitude of the seasons, and through indefinite periods of time. There it is, locked up; and nothing at common temperatures but the energy of a growing plant, can unlock it.*

Lime has heretofore been styled the basis of all good husbandry. It stores up the manure that is not immediately wanted, for future use—a kind of *sure all*. When the supplies from the barn yard are spread and ploughed into a soil that is nearly destitute of lime, the growing crop catches a part of its virtue; but a very large part escapes, and very little will be left for the benefit of those that succeed. I had been used to such soils until I removed to my present farm; and was then agreeably surprised to see how much more durable were the effects of stable manure. My fields were limed by the deluge.

Unwholesome vapors and villainous smells, are also absorbed by lime; and some places once remarkable for insalubrity, have been changed in their character by liming or marling the fields around them. Nuisances are converted into manures. A striking illustration of this principle is contained in the following account from the Essay on Calcareous Manures.

The carcase of a cow, killed by accident late in the spring was laid on the ground, and covered by about 25 bushels of broken shells mixed with 45 bushels of earth chiefly silicious. After the ruins had settled the heap, it was only six inches thick over the highest part of the carcass. The process of putrefaction was so slow, that several weeks passed before it was over: nor was it ever so violent as to throw off any effluvia that the calcareous earth did not *intercept in its escape*, so that no offensive smell was ever perceived. In October the whole heap was carried out and applied to one sixth of an acre of wheat; and the effect produced far exceeded that of the calcareous manure alone, which was applied at the same time on the surrounding land.

The same valuable work contains a caution to the farmer which may save him from dangerous error. "He is not to suppose that calcareous earth can enrich a soil by direct means. It destroys the worst vice of productiveness, [acidity] and uses to the greatest advantage the fertilizing powers of other manures: but of itself it gives no fertility to soils, nor furnishes the least food to growing plants." In other words, it is the strong box for the treasure, but not the treasure itself.

Lime also possesses the property of making sandy soils closer and firmer, and claycy soils lighter. It is a mean between two extremes.

I was conversing several years ago, with a farmer from a sandstone district, who expressed some surprise that 40 bushels of wheat could be raised to the acre. "I don't believe," said he, "that our land could be made rich enough to produce such a crop—it would lodge." I am entirely of the same opinion, unless lime be employed. Stable manure is too stimulating—the stem grows too rapidly—it is succulent and weak. Whether the lime by combining with silica assists in stiffening the stalk, or not, we may be certain at least, that it yields nourishment as the plant needs it; and that every part will be healthy and properly developed.

Professor Emmons says in one of his Geological Reports, that the most fertile soil formed artificially, by the mixture of different earths, yielded on analysis 37 per cent. of carbonate of lime. As it is known,

*Essay on Calcareous Manure.

*The following extract from Liebig's Organic Chemistry, is cited as a parellel case:

"An abnormal production of certain component parts of plants, presupposes a power and capability of assimilation, to which *the most powerful chemical action* cannot be compared. The best idea of it may be formed by considering that *it surpasses the power of the strongest galvanic battery*, with which we are not able to separate the oxygen from carbonic acid." p. 184.

however, that lime in some soils, soon ceases to be a carbonate,* it is probable that the real quantity of lime was even greater than what was indicated by the analysis. I have seen soils of remarkable fertility, that naturally contained a very large proportion of lime; and there is no danger of having too much when it is properly applied.

In drought, how are plants supplied with water? After a shower, the soil may be wet enough for a time; but when the sun and wind dry the surface, the moisture rises up from below by capillary attraction, as the melted tallow rises up through the wick of a candle to supply the deficiency above. It is from this circumstance that our crops over deep beds of sand suffer less in dry weather than where the subsoil is hard and impermeable, showing the benefit of deep and thorough ploughing. In either case, however, as the supply begins to fail, and the soil grows drier, its finest parts absorb moisture from the air; and the plants are constantly nourished by this invisible fountain.

But the different constituent parts of the soil, act with different degrees of energy.† Of the earths, the silicious is the weakest, and the aluminous the strongest, while lime holds an intermediate position. Not one of these, however, would do by itself. We want sand, because no soil consisting entirely of impalpable matters, is fertile;§ and we want it to keep the soil loose, so that the air can enter its pores, and give up the water which it holds as vapor. Without such assistance, stiff clay or aluminous earth would absorb but little moisture from the atmosphere, because it cakes, and shuts out the air. Lime is also a valuable auxiliary in rendering the soil more absorbent, independent of its other indispensible qualities.

But the soil, however it may be tempered and constituted, can never be absorbent in a high degree without culture. Some crops indeed require more of this quality than others. Thus Indian corn requires more than wheat; and wheat more than the grasses of the meadow. But vegetable and animal matters are more absorbent than the earths; and culture only can properly introduce them into the soil. Even when there, frequent stirring is necessary to keep the ground loose and the pores open, for the free admission of the air and the easy passage of the roots.

Our coats sometimes become spotted with mud. We apply the brush, but the bristles pass over without effecting its removal. What is the reason? The clay which was suspended in the water, forms a glaze or crust. It is just so with the interior of a soil which has laid long unstirred. The clay forms a crust round the inside of all the little cavities, preventing the free circulation of air, and the introduction of moist vapor. The fertilizing principles are excluded.

The celebrated TULL, observing the extraordinary effects of high culture, concluded that plants fed on mellow earth, and DUHAMEL adopted the same notion. Their philosophy was *coarse*, but their practice was *fine*. If we were to follow their example, making plenty of fine earth for the plants—not to *feed on*, but to *drink from*, our crops might be greatly increased. One of the chief errors of our husbandry is to cultivate too much land, because it is only half done. Half the quantity with double the work on it, and double crops would be found more profitable.

I have long believed, however, that no part of the system required reformation more than our management of manures. Manure has been called the wealth of the farmer. When it is taken out in the spring, it is commonly scattered over the ground in large lumps; the plough comes along and covers them, or not, as the case may be. If covered, they intercept the ascent of the moisture from below, especially in dry seasons. If not covered, they lie wasting on the ground—of very little value. Indeed some excellent farmers have satisfied themselves that strawy manure is unprofitable for summer crops.

I am far from holding that opinion, however. The error consists in not applying it to the soil in the best manner. In the spring of 1840, I had no ground for field beets, but a small lot where corn had grown for two years in succession. It was unfit for such a crop without manure; and I had only fresh manure from the stable, which has long been considered most unfavorable to the beet. My necessity, however, prevailed against opinion; and I took the responsibility. From each line where the beets were to grow, two furrows were turned so as to leave a wide dead furrow. Into this the manure was thrown from the wagon, each fork full touching the one just behind it, till the row was completed. It was well covered by turning two furrows together over it, which *held it down* while the harrow was passing four times in succession, breaking, pulverizing, and mixing it intimately with the soil. Again two furrows were turned together over the row, and the harrow passed twice more—in all, six times. By this process the ground was reduced to a fine tilth; and if there were any better beets in the county, I did not see them.

To me, it was a most instructive experiment. I have often seen manure applied to corn fields, but never in any case where it was so completely incorporated with fine earth. Even in the driest part of that season, the ground was always moist and mellow.

I am satisfied that we have been too saving of our harrows. Thirty years ago, there was a method of ploughing in this country called "*cut and cover.*" It was ploughing, not to the *shares*, but the *halves*—the furrow slice covering the space where a furrow ought to have been. I am apprehensive that our ideas of harrowing were learned in the same school. When grain is sowed, is it not the prevailing opinion that it is harrowed enough when the seed is covered? I had a narrow land harrowed sixteen times in one day, and was satisfied that the labor was well applied.

For beets, or corn, or potatoes, what would be the effect of ploughing in a heavy dressing of stable manure, harrowing twice, and repeating the operations of the ploughing and harrowings four times more, adding each time to the depth of the soil? I have not yet performed the experiment, but the nearer I have approached it the finer has been the crop. Thorough culture would seem to require that every little lump should be broken, so that the roots could wander freely in every direction, and that every drop of a summer shower, should be caught and retained for future use. Hard land and thin soils have some resemblance to a dish bottom upwards.

An instrument for pulverizing the soil was invented a few years ago in Virginia, by Thomas B. Gay. It is called the Drag-roller, for it operates just as a roller would that does not *turn*, but *drag*. Take a hollow log, six or seven feet long, split it in two, and one half would serve for this instrument. The greater the diameter, the easier it would run; and be less liable to clog by gathering clods before it. Three feet would be better than two, though either would answer. Frame two pieces of scantling into it, connecting them in front; and to this fixture the team is to be attached.

Do you believe that clods as big as a man's fist, or as big as his head, are more useful to the crop than stones of the same size? I do not. But if we break them—grind them to dust—and leave them on the land, they would do as much good as other mellow earth of the same bulk. Now in warring against the clods, this instrument is formidable; and most so before they become thoroughly dried. On the same day, therefore, that the plough turns them *up*, let the drag-roller grind them *down;* and let me suggest that lumps of barn yard manure would escape not much better.

Stable manure, however, is often saved for the wheat field; and at any time during the summer, either before or after harvest, it is taken out and thrown into heaps, where it lies wasting until seed time. It is then thrown round into large lumps as before mentioned, the plough covering some, while others too big to cover, stick up over the field. If the wheat is harrowed, perhaps some of these pyramids are upset or demolished; but often the harrow serves them as the plough did—gives them a shove and passes on. Now it seems very clear to me that manures applied in this way, is comparatively of little value.

There is another class of farmers who manage things differently. Soon after the warm weather commences in spring, they collect all the manure of the barn yard into large heaps; and work it over, two or three times in the course of the summer, so that the straw may moulder and be more easily mixed with the soil. This advantage—the only one that I can discover, is indeed secured, but at a heavy expense. The best part of the manure passes off to visit their neighbors, or roam at large through the atmosphere, leaving the worst part, though still of some value, for the owners. The praise of industry is theirs, and the reward of working for nothing and finding themselves.

Another set of farmers, more enterprising still, make up all their barn yard manure into compost. This is done by successive layers of manure, rich earth, and lime, together with any refuse stuff, animal or vegetable, that may be at hand—to be turned and mixed several times in the course of the season. Such manure is always valuable; but with a little more knowledge, its value might be much increased.

Let us consider this subject. From a heap of fermenting manure, a vapor continually rises, very different from the exhalation of a pond, as our noses might testify. Perhaps some may think that such thin diet as that would be of no consequence to a plant: but I can assure them it is the best part of the manure. Humphrey Davy filled a three pint vessel with a bent neck, from a fermenting heap of stable manure while it was hot, and turned the beak among the roots of some grass. Nothing but vapor left the vessel; yet in less than a week the grass grew with much more luxuriance than the grass in any other part of the garden.*

The value of this vapor is therefore evident; but how shall we save it? In the first place, the fermentation should be very gradual. Make the heap in the shade, or on the north side of a building, and manage it just as you would manage a coal-kiln. The more the air is excluded, the slower and better will be the process. Now covering it with earth will have this effect; but vapor will rise even when it ferments slowly, and therefore marl may be freely scattered through the heap as it is made; but no quick-lime. Lime indeed, should form an outside covering for the whole pile (when marl is not at hand); but it should be carefully prevented from coming in contact with stable manure, or any animal matter. It must not touch them. It spoils them. A layer of earth should be interposed; and then the lime would be highly useful in catching and retaining the fertilizing vapor as it rises.

I believe there is no difference of opinion on this subject among chemists. Humphrey Davy speaks in the plainest language against mixing quick-lime with common dung as injurious; and other eminent men fully accord with the doctrine. On the outside of the heap, however, quick-lime in a few weeks would be carbonated; and after undergoing this change, it might be safely mixed with the compost. A fresh coat may then be applied.

But some farmers may not wish to apply their barn yard manure in the spring, or make it into compost—they may prefer using it after harvest, and yet not have it wasting in the mean time. In that case I would advise that it be thrown inward where it lies thin, just so far that this work conjointly with the work of covering it, shall amount to the least labor. Then cover the whole with straw or earth to protect it from the sun; and cause it to be trodden down by the cattle as firmly as possible to exclude the air, and prevent fermentation. Some of you may recollect when forking up such matters after harvest, that the straw in spots was bright and unchanged. That was where it was well trodden. All change is attended with loss; but as some change may be expected, strew lime or marl and plaster plentifully over it, to absorb, or arrest the fertilizing vapor.

The effect of plaster (composed of lime and sulphuric acid) has long been a source of wonder; for it was a wonder how one bushel could add more than 20 times its own weight to a crop of clover. Inquiring minds of course have been busy in trying to explain the mystery; but I doubt if all the properties of this manure are understood even at this day. Humphrey Davy was inclined to think that plaster was a necessary part of the woody fibre of some plants, analagous to the bony matter in animal structures. The plant could not do without it, though it wanted but little; and hence so small a quantity had such a powerful effect. "Plants which seem most benefitted by its application," says that eminent chemist, "always afford it on analysis."

When this theory was announced some thirty years ago, it was rejected in this country, where the effects of plaster were much better known than in England, but if he could have shown that it enters into such plants in any definite proportion, some of the arguments against him might have been refuted. It appears, however, that he never pursued the inquiry with much interest.

Judge Peters of Pennsylvania, had done more than any other person to extend the knowledge of this manure, and to favor its introduction. He had been very diligent and minute in his inquiries; and though not a professed chemist, became satisfied that sulphuric acid was the active ingredient in plaster. He showed from the observations of Berard, that lands near Catanea in Sicily, abounding in volcanic matter, including sulphur,† were very fertile; and from an experiment by the same person, that brimstone, pounded, sifted and mixed with ashes, had a surprising

*Essay on Calcareous Manures.

†Davy's Agricultural Chemistry.

§"Sand gives little absorbent power."—*Agricultural Chemistry.* "Sand is incapable of absorbing moisture from the atmosphere, or of retaining any valuable vapor or fluid."—*Essay on Calcareous Manures.*

* Davy's Agricultural Chemistry.

† A late traveller writing from Italy says of the peasants residing in the neighborhood of Vesuvius—"If their houses are burned, they return, when the lava cools, to build new ones, and cultivate a soil inexhaustibly fertile."

effect on lucerne and clover. Sulphuric acid greatly diluted with water, had a similar effect.

As a further confirmation of the effects of sulphur or sulphuric acid, when Chancellor Livingston was travelling in Flanders, he saw the farmers preparing pyrites for manure. This mineral is a combination of sulphur and iron, and when partially burnt is employed in the same manner, and for the same purpose as we use plaster. Dr. Chapman of Pennsylvania, found a similar result from sulphuret of barytes.

Last summer, a new work called ORGANIC CHEMISTRY, by Professor Liebig of Germany, was first published in this country; and it has been considered by those best qualified to judge, as constituting a new era in agriculture. It is not my intention, however, to detain you with any of its details, except his explanation of the effects of plaster on growing plants.

Ammonia is an essential part of the food of plants. It affords all vegetables, without exception, with the nitrogen that enters into their composition. It is very volatile; but sulphuric acid (furnished by the plaster) can prevent its flight, and fix it in the soil. This can only be done, however, when the plaster is dissolved. The sulphuric acid then unites with the ammonia, and the carbonic acid of the ammonia unites with the lime.

Such is the purport of Professor Liebig's explanation of this great mystery. If he is correct in ascribing ALL* the effect of plaster to this new combination, its importance in the economy of our farms, must be evident. All our fields, pastures and meadows, ought to be strewed with it; and in accordance with his suggestion, it ought to be scattered in all our stables, and over all our barn yards. The quantity required is not great; and many experiments may be instituted at a trifling expense.

I ought to say, however, that this theory appears insufficient for explaining all the phenomena, in connexion with the use of plaster. Why is its effect on clover so extraordinary, and on wheat so insignificant? Judge Peters, after using it forty years, said he never found it beneficial on winter grain; and others, after long trials, thought it did little for the natural grasses. All these, however, are powerfully affected by stable manure—by the very ammonia† which that manure yields. And what do we observe? Clover of luxuriant growth, and close along side of it, wheat without any indication of benefit received, though both have been plastered alike.

Again—Professor Liebig informs us that every shower of rain, or fall of snow, brings down ammonia to the ground where the plaster ought to arrest it, and the plants that feed on it ought to be more thrifty; but we have much testimony to show that on many fields no trace of such improvement could be discovered. These facts may not be inexplicable: but they appear to me at present, quite sufficient to bang a doubt on.

I am aware that we have statements in regard to the use of plaster, of the most conflicting kinds, so that with some few exceptions what one denies, another affirms; but would this be so if it acts SOLELY in the manner described by Professor Liebig? A simple cause might be expected to produce a uniform effect. For instance: Poudrette is a simple cause; and as far as I have understood, it operates with uniform effect. whether on clover, wheat or cabbages.

On some soils indeed, plaster is uniformly inefficient—not the trace of any effect is perceptible. This inertness has been more frequently observed in the *tertiary formation* near the sea coast; and therefore it was ascribed to the salt vapors. Plaster, however, succeeds well in many places on the coast, and fails in others far beyond the sea breeze, so that the cause seems to reside in the soil, and not in the air.

There are several substances that decompose plaster, besides the carbonate of ammonia. Carbonates of potash and soda have the same power. In the hands of the chemist, plaster and common salt readily change into sulphate of soda, and chloride of lime: and Judge Peters said, "I ruined a bushel of plaster by a handful of salt—it was unfit for either cement or manure." Some of the oxalates also effect its decomposition.

When this happens, the plaster no longer exists: and most of these results are *not* known to be of much value as manures. Such *failures*, however, rarely occur on calcareous soils, or on such as contain a due proportion of lime. There plaster generally proves beneficial; and even in England it has succeeded on such lands. Many years ago, in the south eastern part of Pennsylvania, some farmers thought it would supersede the use of lime; but it gradually lost its effect; regaining it, however, when the land was limed. Wherever plaster proves of no use therefore, TRY LIMING. On a small scale, it may be done at a trifling expense; and may lead to the most beneficial results.

And remember that plaster must be dissolved before it can do any good. Sometimes there is not rain enough for this purpose in summer, and therefore there is always a risk to sow it late in the spring Let it be done early.

I have now arrived at my last paragraph. From bogs or deep swamps, manure may be manufactured to a great extent. Three parts of peat and one of stable dung are mixed together and fermented through the summer. It was used in England* many years ago; and has been found in New England, equal to the same bulk of stable manure, and more permanent in its effects.†

For the New Genesee Farmer.

Strictures on Mr. Garbutt's Views respecting Roots and Improved Stock.

MR. EDITOR—I was much surprised on perusing Mr. Garbutt's remarks in the January number of the New Genesee Former. I did think he would have been the last man that would go against agricultural improvement; and especially root culture and improved stock.

It is admitted by the intelligent cultivators of Great Britain, that the root culture has doubled the products of the soil of that country. There one fourth, and frequently one third, of the arable land is annually sown to turnips or mangel wurtzel, and the advantage of this crop to the cultivators is almost past calculation. The greatest proportion of their beef and mutton is fatted in the winter with these roots, and their stock are wintered on them and straw. Where the farmers of this country to adopt the same improved husbandry, the benefit to them would be equally great. It is true that labor here costs much more than it does there, but that is more than over balanced by the exhorbitant rents and heavy taxes which have there to be paid Were each farmer here to raise 40 or 50 acres of roots annually, (which they could easily do) our country would soon wear a very different aspect. Instead of the poor miserable animals which generally occupy our barnyards in the spring. they would exhibit the fat and thrifty appearance of our stock in October, only much improved in size and beauty, as in England. The greater part of our beef and mutton would be made in winter, and we would not only save our summer's pasture, but our animals would be much better fattened and their flesh of much more value; instead of 2½ cents per pound, it would be worth 8 or 10. There would also be a great saving of ground and labor by wintering the stock without hay, and the consumption of so many roots in winter would greatly increase the barnyard manure, which is the farmer's gold mine, and thus enable farmers to enrich the soil and double the amount of their grain crop per acre. Such would be the beneficial results of introducing the root culture, and the benefit of introducing the "best and most improved stock" will be of more importance, and if possible of more profit. Let any one look over the sales of these beautiful animals which have been made in this country for four years past, and he must conclude that $200 per head will be a low calculation for an average price of such animals in future.

I think that the average value of our native cattle which are slaughtered at home or drove to market, will not average over $25 per head, but say $30, and what an immense difference in value and profit, is there in favor of the Improved Durhams.

And the improved sheep are also well worthy of attention. The 10 or 12 lb. Cotswold fleece is of much more value than the Merino's 3 lb. fleece; and the 35 or 40 lbs. of good mutton per quarter of the former, are certainly of more value than the 10 or 12 of the latter. Were these improvements in husbandry but generally adopted, the products of the soil would be doubled and the wealth of the country increased threefold; and then the hue and cry about hard times and the scarcity of money, would vanish like smoke before the wind.

These facts, Mr. Editor, are self-evident to all who are not wilfully blind, or stupidly ignorant; therefore, persevere in your well doing, extend your valuable paper to every cottage, hamlet, yes, and stately mansion, that all may know what they can do for themselves and their country. And to effect such laudable purposes, I propose that each friend of the New Genesee Farmer pay for three copies annually, and distribute them amongst those of their acquaintance who are not willing to pay for it, and it will soon be in the hands of all.

I remain most sincerely,

A FRIEND OF IMPROVEMENT.

February, 1842.

Corrected Views on Root Crops and Improved Stock.

MR. EDITOR—I am glad to see that you call on your intelligent correspondents to correct my erroneous ideas published in the last number of the Farmer. We are all liable to form wrong conclusions, and a frank discussion of them, with liberality and kindness, is the only way to arrive at truth; and why should the cultivators of the soil quarrel with each other? We have one general interest, viz., the improvement of the soil, and the increasing of the products of our labor. Petty jealousies or individual strife should never disturb the free interchange of our views.

But, my esteemed friend, I think that you mistook my suggestions. It was far from my intention to insinuate that labor and capital judiciously employed, were not rewarded to the American farmer. I think that we, who are lords of the soil, do reap the fruits of our own labor We are better off than any tenants in the world, independent of the enormous rents and heavy taxes of England.

Nor did I intend to hint that the root crop, to a moderate extent, was not profitable. I know the reverse from experience, and much regret that farmers in general pay so little attention to it.

And I am, also, as warmly in favor as any one, of rearing and maintaining the *most improved and best*, (but I would rather say most profitable) stock for this country. It was my wish to convey this idea, and if I did not do it, you must excuse a ploughman's blunders. There are great differences in countries relative to the profit of certain crops; what suits the one does not always answer for the other, and in introducing any new thing, it is very essential that we should at first test its value or advantages on a small scale, and prove them thoroughly, before we adopt them as our own. It is yet my notion that there would be no harm in always doing so. This jumping at every new thing as a trout does at a fly, is the bane of agricultural improvements, and prevents us from bringing any thing to perfection. They who have the means to give $10 per bushel for Rohan Potatoes, or as many hundreds for a Durham Bull, can do so; but if they should have to pay for the one by raising potatoes at 20 cents per bushel, or the other by beef at 2½ cents per pound, I fear that they will think that they have paid rather too dearly for the whistle, and their ardour for improvement thus receive a severe damper. That various agricultural productions are better adapted and more profitable to be raised in one country than another, is not denied by any. It would not be very profitable for a Cattaraugus farmer to sow annually 100 acres of winter wheat, nor for us Wheatlanders to stock our dry soils with redtop. If I am

* "The evident influence of Gypsum upon the growth of grasses, &c. ends only upon its fixing in the soil, the ammonia of the atmosphere."—Liebig, p. 142.

† "Animal manure acts only by the formation of ammonia."—Liebig, p. 138.

* Davy's Agricultural Chemistry.
† Jackson's Geological Report on Rhode Island.

wrong in stating that England is better adapted to extensive root culture, and that it is more profitable there than it can be here, I hope that I have done no harm in saying so, and that it will not prevent any one from trying a few. That the heavy Durham cattle which arrive soon at maturity when supplied with abundance of succulent food and extraordinary care, are better adapted and more profitable for that country, where such food is abundant, labor cheap, and beef high, than in ours, where all are the reverse, is my humble opinion, and I hope that none of my fellow farmers will be offended at my saying so.

I have often wondered and much regretted that those enterprising and wealthy gentlemen, who have spent so much money in introducing these fine, heavy animals, have never taken the trouble to ascertain the exact amount of *flesh*, or *dairy* that they *make for the food they consume*, and let us know for certainty, how much they are preferable to our native stock.

Let any one pass through various parts of Western New York in March and April, and see the number of meagre and half starved cattle which are strolling through the naked fields, or shivering by the side of the fence or empty barns, and he will have reason to think that it would not be much profit, to such farmers at least, to have animals that require more food and better care.

If we feed, and breed, our animals so as to improve them, our native stock would soon become good; and if we do not do so, the best breed in the world will soon degenerate.

Yours most respectfully,

W. GARBUTT.

Wheatland, February, 1842.

We must say that we consider the sentiments advanced above by our good friend, with his qualifications, in the main sound and orthodox; and so far from his feeling any diffidence in sending or we in publishing, let him understand once for all, that we go for the fullest and freest discussion. So far from being offended at another man's honest opinions because they differ from ours, we should just as soon think of being offended because his eyes are blue and ours black; or because the point of his nose does not happen to be placed at the same angle of inclination to the right or the left as our own. Away with such bigotry, it is only fit for fools and Inquisitions!

On the other hand, while we think our friend Garbutt is likely to err on the side of too much caution, "a friend of Improvement," is a little too buoyant with enthusiasm, and his morning sky is colored somewhat beyond nature. In their present condition we cannot think of putting two such animals in the same yoke side by side; but with friend Garbutt in the filles and a "friend of improvement" forward, we may get along safely and successfully, though in such case there must of necessity be considerable chafing of sides and of haunches, and a great loss of power.

Now with all due respect for our friend Garbutt, we cannot see the advantage or necessity of beginning with the alphabet when we have already learnt to read, nor with a "friend of improvement," that because we have learnt to read, therefore, we know every thing, and there is no longer any occasion for books. There is always some danger in going between opposing parties of getting hustled ourselves, but we shall, if we can, get through, no matter if our coat is torn.

The value of raising vegetables for stock and in large quantities is well established in England. Why cannot we avail ourselves of their experience in a question which they have settled; and let stock raising farmers, and wheat growing farmers too, make, as George Sheffer has done, the growing of roots for stock an indispensable branch of husbandry? The extent to which we pursue it must be settled by a sound discretion, having reference to our wants and to our means, and to the whole of our condition. But the question of their utility, in respect to keeping our stock and the means of enriching our farms, is no longer an open question here any more than in England.

Then again in regard to the introduction of the Improved breeds of cattle among us. In England the most extraordinary pains have been taken for more than half a century, the highest skill exerted and the most lavish expenditures incurred in improving their breeds of cattle; and through the liberality or the commercial enterprise, or, if you please, the avarice of many individuals, public spirited or otherwise, we have the advantages of these improvements placed directly within our reach. Now why should we not avail ourselves of them, either by judicious crossing with the best of our breeds, or by adopting the pure stock and making for them such provision as is demanded, in order to maintain their superiority? Such exertions would very much benefit our husbandry and undoubtedly give us an ample profit. At the same time the expectations held out by "a friend of improvement," that 200 dollars per head for our cattle will in such case be a *low* calculation, and instead of getting 2½ cents per pound for our mutton we shall be sure of 8 or 10 cents, is not a calculation that we should think safe to encourage, certainly not in the present dilapidated and fluctuating condition of our currency, when no man can tell for his life, what a dollar is worth. Prices are of all matters in political economy, the most difficult subject of calculation, combining, as they necessarily must, in order to any safe reckoning, so many various elements, such as the condition of the currency, the supply of the article, and the demands of the market. With these brief hints, we submit the case between the parties to the court.—[*Editor.*

Madder.

Our respected correspondent, L. A. L., who desired some information from us on the culture of madder, we are compelled to refer to the subjoined notice which appeared in the Genesee Farmer in 1837, vol. 7, no. 39., which perhaps will be as full as he desires; if not, let him do us the favor to say in what particulars he desires further information, and we will meet his wishes. We have delayed replying to his inquiries because we hoped we should find some individual practically acquainted with its cultivation and management. That has not been our good fortune, and we have never seen the plant growing. We should infer from the statements given, that the crop might be cultivated to much advantage, if we have only patience enough to wait for the harvest; but as to present prices of the article we know very little, and what price it is likely to bear four years hence, who is gifted with the power of divining?

"Madder, or *Rubia tinctorium*, is one of a large family of plants, and for its valuable qualities in coloring has become an important article of cultivation in several countries, particularly Holland, where the province of Friesland is almost wholly devoted to its production. In Radcliff's Flemish Husbandry, the following condensed rules are given for its culture: The soil a rich sandy loam of from two to three feet in depth, as the roots must have room to penetrate;—the land laid up in ridges in autumn if to be planted in the spring, and kept clean from all weeds;—plant in April, on ridges if the ground is wet, if not, on a level, in rows 18 inches apart, and the plants 12 inches distant in the rows;—as much root as practicable should be taken with the slips to be planted, and from six to eight bushels will be required for an acre, though this of course must depend mainly on the distance adopted by the planter:—plant nothing in the intervals, but as the tops shoot up bend them occasionally to the ground and partially cover with earth;—when the tops fall off in autumn, earth the rows as a protection against frost, and in the spring hoe the intervals thoroughly:—the slips of the second year are the best to plant, and should be taken off in the spring when about an inch above the surface;—three years are required for the roots to arrive at perfection, when they are dug by deep trenching, the roots quickly and carefully dried to prevent discoloration or molding, washed and dried in a building resembling a hop oven, and then ground and packed for use.

Madder roots are long and creeping, about as large as a quill, red within and without, and a single plant will, in a good soil, yield about 40 pounds of fresh roots, which will in drying be reduced about six sevenths. Some have dug the roots in two years, but the roots do not then contain the proper quantity of coloring matter; and if they stand longer than three years more is lost than is gained after that period. All parts of the root contain some coloring matter, but it is in the middle part that the most and the best is found, the microscope showing in this part a multitude of shining red particles, constituting the rich dyeing material, thickly dispersed among the fibres. "According to experiments made in England, five pounds of fresh roots go as far as four of the dry ones; and it is estimated that seven or eight pounds of fresh roots are reduced to one in drying; hence the great advantage of using green roots where practicable, becomes apparent. They are more extensively used in a fresh state in France than in any other country, and are the recalled *alizari*." Good madder when ground for the market is of an orange yellow, passing into a brown red, having an acid sweetish taste and a strong smell.

Some improvements in the culture have been made since it was first attempted here, and if the amount of product per acre may be considered as a criterion, our methods have the advantage over those practiced in Europe. Mr. Woodberry of West Winfield, Herkimer Co., in a letter to the Cultivator, says,—"It is now ascertained that the best method of planting madder, is in beds six feet wide, with four rows of plants to a bed, leaving a space between the beds nine feet wide unoccupied; or it may be planted with rows of corn or potatoes the first season. This space is useful for various purposes, as passing with a team to carry manure, should it be considered necessary the first and second seasons. The manure should be dropped between the beds, and mixed with a plough before it is used on the beds." By treating the intervals in this way, Mr. Bronson, a cultivator of madder in the same vicinity, on a few acres of land planted with madder, raised upwards of one thousand bushels of potatoes; and handsome crops of corn have been obtained in the same way. The advantage of planting in beds, arises from the greater extent to which the tops may be covered, as each earthing, properly performed, adds materially to the quantity of the roots produced, the top itself to that extent being converted into root, and not to be distinguished in its qualities from them.

The following estimate prepared by Mr. Woodberry, and it does not vary materially from those furnished by other cultivators, shows at a single glance the expense of cultivation, and the value of the article produced when ready for market.

Seed per acre 8 bush. at $4	$32,00
Interest on land 4 years at $40 per acre,	11,20
Ploughing and harrowing twice,	2.50
Dressing first year,	8,00
" second year,	7.00
" third year,	3,00
Digging,	21.00
Drying. 25 cents per cwt.	12 50
Grinding do do	12,50
Total expense	$111,70
Product if well cultivated, 5000 pounds, average price 20 cts. per pound,	$1000.00
Deduct	111,70
Clear profit,	$888,30

We have heard but one serious objection made to the culture of madder, and that is, the long time required for its cultivation allows great fluctuations to take place in the prices; and those which may exist at the time of commencing with the plant, cannot be relied on as those which will prevail when the article is ready for market. When we remember, however, that the demand is steady, and increasing; that the quantity produced is not likely to vary suddenly; and that for a number of years the price has ranged between from 17 to 23 cents for good qualities, we think little apprehension need be entertained of an overstocked market, or heavy sales. Seed at the proper seasons, may, we believe, be obtained of the growers in the region we have mentioned, as well as mills for grinding the roots, and we should be pleased to learn that farmers suitably located, had added to their other sources of profit, that of the culture of madder."

SCIENTIFIC AGRICULTURE.--Letter 2d.

Before quitting the subject of Carbon, it is proper to advert to the experiment which is now frequently tried, and which I have recently seen here.

A Hyacinth bulb was placed, early last November, in a tall glass jar with about three inches of good rich earth, and plentifully watered, the mouth of the jar was then closed as well as possible with cork and sealing wax, and this was done so effectually that the moisture did not evaporate; consequently but little if any air could enter, and the original air within the jar, therefore, remained unchanged by admixture with the fresh external air. The Hyacinth grew vigorously, and in the month of February flowered luxuriantly. Now it is clear that the carbon necessary to form four or five large leaves and a full grown spike of flowers could not have been derived from the small quantity of carbonic acid gas contained in the air in the jar, nor even from the bulb alone; hence a large portion must have been obtained from the humus of the mould—the carbon of which, combining partly with the oxygen of the air, but chiefly with the oxygen of the water, formed carbonic acid gas for the use of the plant. This confirms the opinion of Liebig, who states that the principal use of Humus is by its combination with oxygen, to provide an atmosphere of carbonic acid gas for vegetables to convert into carbon during their growth. Although the trial with a bulbous root, which in the bulb contains already considerable provision of material for growth, is not so fair an experiment as it would be with a plant wanting a bulb. Yet I know from experience, that a hyacinth does not contain near sufficient in its bulb to bring its flowers to perfection without any other aid.

The practical value of these considerations on the subject of Carbon is, that Humus being a considerable means of supplying carbonic acid gas to plants, it must be exposed in sufficient quantity to the action of air and water to generate this gas. This is done by cultivation, in other words, by stirring the soil, keeping it in fine tilth, and thus continually exposing to air and water fresh portions of it—for this purpose also, the admixture of a moderate quantity of stones of proper size is useful, they keep the earth more free and open, and increase the surface of the soil where they are in contact with it, so that more humus is exposed and kept in admixture with moisture.

Azote.—It seems to be well ascertained that, whatever quantity of nourishment be offered to a plant and taken up by it, this nourishment cannot be digested, (assimilated as it is more properly termed in vegetable life,) unless it be accompanied with a certain proportion of Azote—in other words the plant cannot convert its food into luxuriant growth without the aid of this substance. It follows then, that however rich the soil may be in other nutriment, if azote in abundance be not supplied, this overplus of undigested food taken up by plants will be again thrown off by them in the shape of gum, honey dew, or other excrements, with every indication of disease. This operation has a perfect parallel in animal existences; a certain quantity of azote is necessary for the digestion of their food. As upon the views taken of this substance, azote, depend results of the utmost importance to agriculture; its nature and properties cannot be too well understood, its application and effects cannot receive too much attentive consideration. I may, therefore, at the outset, be permitted to enter into a few scientific details which shall be as brief and as clear as I can make them.

Payen, a French Chemist of high repute, who has devoted much time and study to these enquiries, has shewn that azote is requisite in the formation of a substance in plants analogous to fibrin in animals; that this azotated substance is the origin of all the parts of plants, is always present with, and accompanies all their organs. Azote is, therefore, necessary to produce, with other materials, this concrete fibrinous substance, as the rudiment of all vegetation. Azote also serves to produce the liquid *albumen* which all coagulable juices of plants contain, and a substance called *caseum*, which has often been confounded with this albumen.

Fibrin, Albumen, and Caseum, therefore, exist in plants, and these three azotated substances offer a remarkable similarity in properties with the three non-azotated substances mentioned under the consideration of Carbon—thus,

Fibrin, like woody fibre, is insoluble;
Albumen, like starch, coagulates by heat;
Caseum, like dextrine, is soluble.

A more profound analogy also exists in the simplicity of the combination of their elements, thus, 48 molecules of carbon, 6 molecules of ammonium, and 17 molecules of water, constitute or may constitute by a different arrangement of these molecules, either fibrin, albumen, or caseum; and thus in both cases, carbon and water, or ammonium (containing azote) and water, are the only ingredients necessary for the composition of the substances on which we are now treating, and the production of these ingredients is constantly renewed by the circle of reactions of the animal and the vegetable existences as stated in my last letter.

Now it is of much importance to observe closely and separate distinctly in the mind, two operations of nature in the growth of a vegetable, because it will be seen that ample provision must be made for each of these operations. These two important periods are, first, the growth and increase of all parts of a plant, that is stem, leaves &c., until the flowers and fruit appear in their earliest stages, and fecundation and ripening begin; the growth and increase of the first period is then gradually arrested, and a new or the second operation commences. It may, I think, be conclusively shown, that if we were to continue during the summer and the early autumn constantly to apply fresh stimulus in the shape of manure and moisture to a plant, take for instance one of annual duration, we should obtain an immense growth of leaf and stalk, but the fruit would amount to nothing—on the other hand, if we abstain from applying moisture and stimulants to a plant half grown, we should obtain premature but worthless fruit. This fact is well known to gardeners who, by confining the roots in small pots and depriving them of stimulants, force their plants into premature bloom—or it may be observed on hot and poor spots of land, where the same causes are in natural operation. It is, I believe, sufficiently apparent that proper soil with a sufficient supply of carbon and azote, or in plain terms, well manured land, and plenty of water, are the indispensable requisites for the first operation, and equally so, that sunlight and heat are the necessary conditions for the second operation. If the manure on a hill of corn be examined when the fruit is formed, it will be found pretty well exhausted of its powers—they are no longer absolutely requisite, they have played their part, the chief necessities now are sunlight and heat, with a degree of moisture in the atmosphere sufficient to keep the outer coverings or integuments, and particularly those of the seed and seed vessel, in a soft and yielding state, until they become well filled with the materials which this light and heat is converting, in other words ripening, from the saccharine and other juices prepared in its first stage of growth.

The phenomena attending this second period are extremely curious. During the first period the vegetable manufactures and stores up an ample supply of saccharine and other juices, containing chiefly carbon and hydrogen, now when a bud is to open, a flower to be fecundated and fruit perfected, heat is required, and is produced precisely by the same method as in animal life, by the consumption, or rather by the combustion as it ought to be termed, heat being produced, of the carbon and hydrogen in these saccharine juices. The beet root, for instance, previous to flowering, contains a large quantity of saccharine juice, after flowering, however, this has all disappeared. If barley or wheat are made to germinate, heat carbonic acid and water are produced, the starch which these grains contain is converted, first, into gum, then into sugar, and the carbon and hydrogen which this contains, are changed by combustion into carbonic acid. Fecundation is always accompanied by heat, flowers respire carbonic acid, they therefore consume carbon; this carbon in the sugar cane, for instance, must arise from the sugar accumulated in the stalk, which sugar disappears when flowering and fructification are accomplished. Thus at certain periods in certain organs, a plant, like an animal, becomes an apparatus of combustion—carbon and hydrogen are burnt in it and heat is given out. This view of these phenomena, will sufficiently account for the differences of opinion amongst many of the early observers of vegetable physiology, on the subject of plants respiring carbonic acid, oxygen, &c.

In my next letter, I will endeavor to give some account of the means, both by the common and by artificial manures, of supplying that absolutely necessary substance, azote—and if I am fortunate enough to obtain any insight into the new artificial manure which has produced the effect on wheat I mentioned in a late letter to you and which is now being manufactured for sale in England, I will communicate the information. I suspect, however, that the same manure was under process of manufacture here last year and is now awaiting the trial of its efficacy. J. E. T.

Indian Corn and Wheat Alternately.

Mr. Colman—

I do not send you a description of the manner in which I have raised my corn for a few years past, because I think my crops have been over large, but rather from their uniformity in yield, which is a desirable object for every farmer in all his crops.

For the last five years I have alternated corn and wheat, drawing from my barn-yard in the spring, from thirty-five to forty wagon loads of long manure to the acre, putting it upon wheat stubble, spreading it evenly, and ploughing it under at least eight inches deep; then harrowing lengthwise of the furrows, and marking rows three feet apart each way, planting six to eight quarts of seed (Dutton) to the acre, from the 8th to the 20th of May, according to the season. When up, I leave but four stalks in a hill. I tilled with a cultivator, and hoed twice during the summer without hilling, and harvest by cutting up at the ground from the first to the tenth of September, and draw it off and set it up to cure.

The land is then ploughed once and sowed to wheat; one and a half bushels of seed to the acre, and well harrowed in. From the above management, my corn has yielded for the five years, at least sixty bushels to the acre, as ascertained by accurate measure; besides giving about two tons of stalks to the acre, which I calculate to be worth at least three fourths as much as hay.

My soil is a gravelly loam, dry and warm; subsoil differing very little from the surface, except a little more tenacious. One advantage in planting corn on wheat stubble is, that it is not as liable to be injured by worms as when planted on sward land. My wheat that I have sowed after corn, has yielded from twenty to twenty-five bushels to the acre, except the past season, which was quite a failure, owing to the badness of the season.

Genesee Co. March, 1842. M. N.

Editorial Remarks.—Emulation in Agriculture.

We call the above good husbandry. Sixty bushels of Indian corn and twenty-five bushels of wheat are certainly very good crops but they are only half enough

if twice as much can be obtained. Our friend says he thinks uniformity in the yield of crops is very desirable to farmers; and so do we, provided they are *uniformly as large* as can be raised. Cobbett says he despises a man who is contented with his condition. We do not like the boldness of this expression; but we hold that a man should always be seeking to make good better and better best. This is our maxim. We go, therefore, in all cases, for the very largest product, and advise no farmer to be satisfied while, in a fair race, his neighbor is so much as the length of his nose before him. We advise every farmer, in the religious sense of the term, to be content with his condition, and thankful for all the blessings which God gives him; but we advise no man to be satisfied when he can honestly mend his condition, until that condition is mended. In the competitions of life, never cross your neighbor's path so as to take the road from him; never throw him down; never run over him if he falls down; never rejoice to see him down; have the magnanimity to help him up; but never try to lift yourself by pulling him down, or trying to stand upon his shoulders; give him fair play and cheer him on if he comes out first. But determine to lack no efforts, if you are beaten, to come out first yourself next time. Don't mind the lazy dogs, who are always croaking and crying out "you'll fall, you'll fall." Those fellows do not get their eyes open in nine days; indeed never get them open; but are always lying in the way of other people. If you get sixty bushels of corn this year per acre, resolve that next year you will get eighty. If your neighbor gets one hundred, then determine you will get one hundred and twenty five. It can be done. The limit of production is not yet nearly reached; and in agricultural emulation, no bad passions can be aroused; and merit can be always determined by a standard so exact, the actual measurement of the ground, the labor, the manure, the expense, the product, as to leave no question to whom the prize of the golden fleece belongs

For the New Genesee Farmer.

Cultivation of Ruta Baga.

Mr. Editor—

Having, by experience, convinced myself that Ruta Baga and Mangel Wurtzel can be grown successfully in this country, I shall be happy if any thing I can say, may be the means of causing them to be more generally cultivated. Various reasons I have heard assigned by intelligent farmers why they do not cultivate roots. But when I call to mind that in the old country I have heard similar reasons assigned by farmers, who now grow turnips as extensively as their neighbors, I do not despair of seeing root cultivation much increased in this country. Of course, with our severe winters, it would not be profitable to grow roots to the same extent as in England, but every farmer might grow a few. The objections urged are, either that the soil is not adapted to the crop, or the flies eat up the plants, or the grasshoppers destroy them, or it requires too much trouble and expense. With regard to the non-adaptation of the soil, the plea is reasonable, but I feel confident that even this difficulty may be surmounted. In reading an account of an agricultural meeting in Shropshire, in a late English paper, I perceive that the premium for the best crop of Swede Turnips or Ruta Baga, was awarded to a farmer occupying a very stiff clay farm, and the judges remarked that they had never seen a better crop. As the mode of cultivation of this crop was stated to be novel, the grower was requested to explain his plan to the meeting. The novelty consisted in manuring and 'dging his land in the fall, instead of the spring. Consequently, his stiff soil would be mellowed by the winter's frost. The account which I saw did not enter into particulars, but I think it would be advisable before sowing on the old ploughed ridges, to draw a very ight harrow along them to gain fresh soil for the seed, and also to destroy any weeds that may have sprung up. I have seen a branch of a tree used for this purpose, it would be less likely to disturb the manure.

As to flies, I have had my share, but they have never seriously injured my crop. I find the best remedy is to work your land fine by rolling and harrowing, have it in high condition, sow seed enough for the flies and yourself, and soon after the plants are up to sow plaster or ashes over them. Grass-hoppers I have found more troublesome and vexatious than flies. Last year, after my plants had been hoed out to their proper distances, and when I considered them secure from all enemies, I perceived some of the plants drooping, and on examining them I discovered that the bulbs were gnawed all round. I rooted amongst the earth all about the plant, but could not discover the aggressor. At length suspicion fell on the grass-hoppers; I watched them closely, and detected them in the act. I then waged a war of extermination against them. I and another person, with sticks, killed or routed every grasshopper in a field of about two acres. I wish, Mr. Editor, you had seen us in our shirt sleeves, for the weather was pretty hot, pursuing our flying foes. After this, I cannot certainly gainsay the trouble of the crop, and they who are afraid of trouble, had better not attempt to grow roots. After all, the question is, will the crop pay for this trouble and expense? I am fully convinced that it will. Mine, in spite of its enemies, produced nearly 19 tons to the acre, the year before I had 28 tons to the acre in the same field.

Yours truly, B. M.

For the New Genesee Farmer.

Ruta Bagas for Milch Cows.

I have tried with success the experiment recommended a year or two since in the Farmer, for preventing the taste of turnips in butter and milk from cows fed on these roots, by feeding them immediately after milking. A cow has been fed through the winter with one half bushel of ruta bagas at a time; and several persons declaring themselves to be exceedingly acute in such matters, have assured me after repeated tastings, that they could not perceive the slightest flavor of the turnip. The trial, therefore, appears to be satisfactory, so far as one experiment is concerned.

But why report the result at this season of the year? Why, in order that you may make provision for next winter, by putting in order a large piece of ground for ruta bagas, immediately, manuring it well, and giving it several good ploughings and harrowings, to mix the manure well with the soil; then go to our accommodating friend at the Rochester seed store and get a full supply of seed, and put them in the ground by the first of summer, and you will have done at least one good action.

Remember that thorough previous culture destroys the weeds, and saves two thirds of the labor of hoeing.

And that mixing manure with the soil, thoroughly and intimately, is as important as the thorough mixing of the other ingredients of the soil; and to plough in large unbroken lumps of manure and leave them untouched, is as absurd in practice as to manufacture a soil of sand and clay by throwing together large pieces of unburnt bricks and sandstone. J.

Wayne County, 1842.

The White Carrot.

According to the experiments I made last season on the *long orange* and *white* carrot, the yield of the latter compared with former, is about 3 to 2; and from the fact that the latter projects about 6 inches above ground, a man will harvest about double the quantity of them in a day, as they are as easily drawn as the ruta baga. Their comparative nutritive qualities, compared with the orange, remains to be accurately determined, though they do not apparently vary much. J.

Town and Country--Attractive Industry.

It has been said that God made the country, but man made the town; if we needed any argument at this time to prove the perfection of God's work, and the imperfection of man's, it is in the factitious moral and social ills which afflict the town, as compared to the social independence, physical health and real comforts which the country enjoys.

In the town we see men and women, bartering that liberty which is their birthright, for baubles; penury and want treads on the heels of improvidence, and the revulsions of trade bring with them more evils than were contained in Pandora's box, with no hope at the bottom.

But to the country the Lord has promised a seed time and harvest; man has only to improve the blessing by that attractive labor, which receives a renewed zest in the joyous certainty of reward, and the bright aspect of nature arrayed with a splendor, in comparison with which, the gay decorations of art are poor indeed.

But to make rural industry truly attractive, the laborer must study and understand nature's laws; he who labors blindly upon the earth's surface, content with the mere results of his toil, is only an animal working from mere coercion or necessity, without intelligence, dignity or enthusiasm; and yet, as Brisbane says in his admirable essays on associated attractive industry, "such has been the condition of the Industrial Classes of all ages, and as a consequence, industry has been an ignoble, an unattractive and a degrading function!" S. W.

For the New Genesee Farmer.

Choked Cattle.

A correspondent in the last number of your paper, describes a method of relieving choked cattle. As I have seen many choked and various modes to relieve them, some with success, and others with failures, I venture to recommend that which I have found invariably to succeed. Take two small wooden blocks, about four inches long and three inches thick, place them about four and a half inches apart and nail on two connecting boards, one on the upper and the other on the under side, thus forming a square hole between the blocks 3 by 4½ inches. These connecting boards should be about one half or not more than three quarters of an inch thick, of hard, tough wood, and the ends project a few inches to serve as handles. If the stuff is at hand, such a thing can be made in about four minutes and a quarter.

When the cow becomes choked, seize her by the horns, draw out her tongue one side, insert this instrument between her jaws, holding it firmly to its place by the handles, so that a man may thrust his arm through the hole down the cow's throat, and draw the obstruction out. A man with a small hand can do the thing best, if he is not afraid to thrust in the full length of his arm nearly to the shoulder, which is usually necessary. But a big fisted man can do it generally very well.

I have seen the obstruction pushed down the cow's throat, with flexible rammers, but in most instances the operation proved fatal. Perhaps it was not done right; if so, the difficulty of doing it right is an objection. The mode I have here described cannot easily be done wrong. J.

Onions,

Should be sown as early as the season will permit. The ground for them should be prepared in autumn, so that no labor will be necessary in spring except to mellow the surface with a fine garden rake. They do not require to have the soil worked to a great depth in spring, as they are an above ground plant, with the exception of the fibrous roots. Make mellow to any depth in autumn, as it will give them a proper moisture. W. B.

ROCHESTER, MAY, 1842.

☞ The absence of the editor must serve as an apology for the non-appearance of some articles intended for this month's paper; also for some typographical errors and other defects that may appear.

A letter from the Commissioner of Patents in reply to some remarks in our last, was received and forwarded to the editor, and by him returned with explanations, but was too late for insertion in this number. It will appear next month.

TO CORRESPONDENTS.

ORCHARD GRASS.—Our correspondent, John Johnston of Geneva, is informed that Orchard Grass, when well cured, makes as good hay as ever was placed before cattle of any and every kind. The land most congenial to its growth is a moist but not a wet soil. It yields abundantly and starts again immediately after being cut, so that where it is used for cattle kept in the barn, or, as it is termed, soiled, it may be cut several times in a season. It makes excellent pasturage for sheep or milch cows. The main objection to it is that it grows in bunches and clumps, and does not entirely cover the ground. This may be owing to sowing the seed too sparingly. The seed is very light, a bushel not weighing more than from sixteen to twenty pounds. The quantity to be sown varies from three pecks to two bushels, with four or six pounds of clover. In respect to grass seeds of all kinds, we recommend always much more liberal sowing than is usual. Orchard Grass seed of a good quality, is not easily obtained. Judge Peters recommends to every farmer to raise his own. We have obtained it from Baltimore and Philadelphia; very little if any of this seed is raised at the north. The price is always extravagant, from 3 to 4 dollars per bushel. The seed is very chaffy and light; and we would recommend sowing it in a still or a damp day, and it would be well to mix the seed with finely ground plaster.*

WELLS AND CISTERNS.—In regard to "cementing his wells so as to prevent the water from running off, where the water comes in from the bottom," we do not see very well how the passage for the admission of the water is to be left open, and the surplus water from rains not find its way out by the same crevice until the water in the well reaches its natural level, which he says is two and a half feet. Instead of lining his wells, our advice to him is to dig and form a large cistern, line it with brick and point it with water-proof cement; let it be so far below the surface as to be secure from the frost; and let the spouts from his buildings turn their water into it. If large enough, this, in ordinary seasons, would furnish him an ample supply, and the length of the pump to raise the water would not be complained of. Water proof cement can be easily obtained upon inquiry in Rochester, and a common mason can put it on. The work once well done, will be done for a great while; but do not slight it. We know several instances where private individuals have adopted with advantage, this mode of supply for their families and stock, where it was difficult to obtain water by digging.

STOCK FOR SALE.—If he wishes us to advertise the stock he has for sale, let him send the wherewith to buy the printer's breakfast, otherwise the types do not arrange themselves harmoniously and the press is apt to creak like the cart-wheel of the farmer, whose pork-barrel is out. He will forgive us, we know; but we are compelled to adopt a general rule. We mean only to say that we are often solicited to state that such and such a person has such and such things to sell. Now as the price of our paper is as low as it can be, we cannot insert such notices but as advertisements, to be paid for at the usual rates.

COMPOST MANURES.—To our inquiring friend S. A. from Mecca, Trumbull Co., Ohio, we simply say that we shall hereafter treat occasionally and fully the subject of compost manures, and the value of saw-dust and peat. We add that night-soil is only a modest name for human excrements; and that poudrette is a preparation of this substance with other substances so as to render it portable and inoffensive.

We know nothing of Gilson's Straw Cutter or Mellish's Root Cutter, excepting that they are highly recommended. Green's Straw Cutter is also in high repute. Of root cutters there is a great variety. We recommend the most simple, which is a knife or spade formed of two stiff blades, placed at right angles, thus ×, about six inches long from one end to the other, about four inches deep, formed with a socket to put a handle in like the handle of a shovel. It is used like a spade. The root is laid upon the floor and at every blow of the cutter is divided into four pieces. It has another advantage, that the root or piece of root when struck cannot slip and does not adhere to the instrument as to a common spade. On the subject of oxen suffering from heat and on subsoil ploughing, he shall hear from us hereafter.

Some remarks on the Analysis of Soils, in reply to G. W. of Northbridge, are unavoidably omitted this month. We are obliged by his kind offer, and shall forward the numbers to his request.

We have great pleasure in acknowledging the communication of J. W. S. from Maumee City. It shall appear in our next; and we anticipate much gratification from his future favors.

The able article of J. S. D. from Monroe, Michigan, arrived too late for the present number. His views, in our humble opinion, need various limitations and qualifications; and whose views do not; but he may be sure we will give him a fair field. We hold to the full and free discussion of every subject of human interest and concern; and will never entertain a doubt that truth will ultimately triumph.

J. W. is thanked for his additional letter on the subject of rotting Hemp.

S. H. A. on making butter, is respectfully acknowledged.

Marie's eulogium on flowers does honor to her taste; and is for the present laid aside only on the ground, that the topic has already received perhaps sufficient notice in several late numbers. We hope to hear from her again.

A GENTLE BREEZE.—We have a spirited communication from Flora in reply to Zelia. It must lie over for this time. What is to come from this "pulling caps" among the ladies we cannot say, We shall be parties to no bloodshed. When Flora discovers that Zelia has enlisted S. W. in her support she may be disposed to beat a retreat. There will, however, we trust, be no need of a special messenger to adjust the differences. Flora says "she is a little excited." Keep cool, dear lady; or we may get into a bad box. This excitement is quite contagious.

EDITORIAL LIBERTIES.—A correspondent inquires if we are willing that our correspondents should take the same liberties with us that we take with them. We know him; and nothing could surprise us more than that a gentleman like him should talk of "taking liberties" with any body. For ourselves we should never think of it.

* A few bushels of fresh Orchard Grass Seed is just received at the Rochester Seed Store, from Philadelphia.

For the New Genesee Farmer.

Degeneration of Broom Corn and other Vegetables.

In an extract from Colman's Fourth Report, on Broom Corn Seed, published in the last New Genesee Farmer, it is stated that "the saving of the seed of broom corn is, by the best farmers, deemed a matter of much importance. It must be taken from that which produces a full and square head; and not from that which runs up in a spindling form and branches like a pine tree."

Now I contend that if *pure seed* be planted at a proper distance from any other species of the same family, it will not "spindle up like a pine tree." It is the artificial crossing of the broom corn with the common Indian corn, or some other species of the same family, that produces this generation in most cases. It is no doubt important to select the seed of broom corn from the most perfect heads, and those of early maturity. I should not at this time have copied the above extract, if I had not noticed on the German Flats and about Rochester last fall, most invariably, the fields of broom corn were growing in the same inclosure by the side of maize or Indian corn. I should not be surprised to learn of your neighboring farmers, that their broom corn had degenerated by the brush partaking of the shape of the tassel of the adjoining corn. I have seen perfect kernels of Indian corn growing on the stalks of broom-corn.

With us, it is not an uncommon saying "my seed has run out;" when if proper care had attended the cultivation of the various plants, instead of "running out," they would, in most instance, not only retain their good qualities, but advance their fecundation and become beneficially improved.

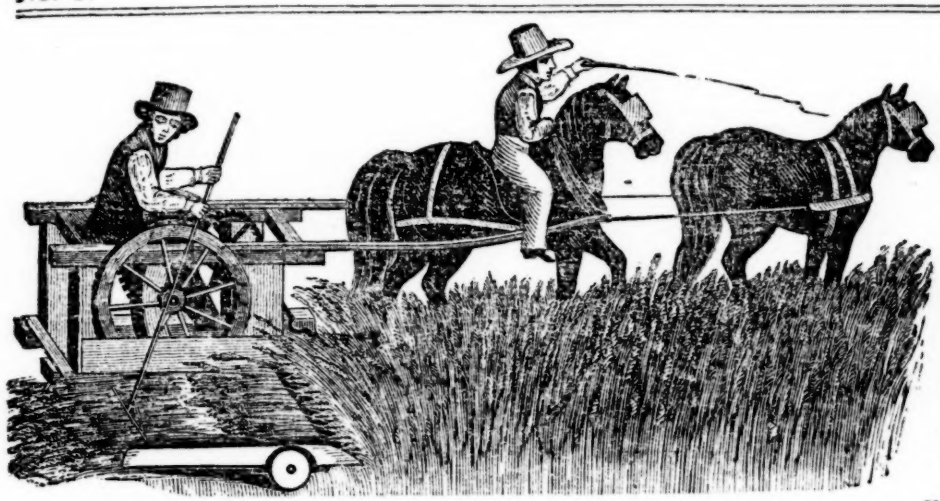
I well remember when I was directed to set out for seed, cabbage, turnips, beets, radishes, onions, &c., of the same and different varieties, all in a row, or one bed together, where, perhaps, the common mustard, a species of the same family of some of the seedlings, grew up and overshadowed the whole. At the proper time, some rainy day, we were authorised to go and select our cabbage plants, with the following directions, for transplanting; "now be sure boys and get the blue *short legged ones*, because the white *long legged ones* are mostly scullions, and wont have any heads." We would find now and then a "short legged one," and of course it had to *creep* into the basket.

At another time we had some grand head lettuce, then a new and valuable variety, but it soon "all ran out," the seed matured by the side of other varieties. If the reader of this article has any choice cabbage, squash, or any other vegetable, that he wishes to retain in all its virgin purity, he must not carelessly put them in bed with other species of the family—for if he should, he might thereby bring into birth a creole or other uncalled for illegitimate.

Many species of the common productions of our country may be improved as well as degenerated. The specific change in vegetables, as well as animals, can be produced only by a slow and gradual process; a valuable property which at first is merely accidental, may from one generation to another by a repetition of impressions, become at last confirmed and hereditary. The new and choice varieties may be retained if not carelessly allowed to grow among or along side of other inferior species, being exposed to impregnation by the male parent of its inferior, while in blossom.

Yours, SOLOMON W. JEWETT.

Woodbridge, Vt., April, 1842.



Hussey's Reaping Machine.

Some account of the operation of this machine was given in the New Genesee Farmer of last October, (Vol. 2, p. 155). We now give a more particular description of it with an engraving. The machines are manufactured by Mr. T. R. Hussey, Auburn, N Y. The following is the inventor's statement, as published in the Albany Cultivator, to which we annex the certificate of a highly respectable farmer of Cayuga county.

MESSRS. EDITORS—At the request of several farmers of your state, I send a description of my Reaping Machine and its mode of operation, accompanied with such certificates as I can procure near at hand. The machine consists of a low frame resting on a pair of common wheels, with fills for one horse; the second horse is geared tandem. The main axle is square in the hubs of the wheels; on this axle is a cog wheel which communicates motion to the cutters. The part thus far described, follows directly behind the horses, and wholly on the stubble; the right wheel tracking very near the standing grain. A platform about five feet square extends from the right side of the frame, one edge of which is attached to the frame by hinges; the opposite edge rests on a truck wheel. This platform lies near the ground and can be regulated to cut a stubble from 5 to 12 inches high.

The cutting apparatus is placed on the front edge of the platform, and is constructed as follows:—A number of steel blades, 4 or 5 inches long, about 3 inches wide at the base, formed like lancet points, sharp on both edges, are riveted on an iron rod side by side, forming an instrument something like a coarse saw. In addition to this, there is a row of strong iron spikes fixed firmly to the edge of the platform and pointing forward horizontally; each spike is formed of an upper and a lower piece, leaving a space through each spike for the blades to play in. As each blade occupies three inches on the rod, so there must be a spike to every three inches of the platform. The rod on which the blades are riveted, is moved by a crank having a sweep of three inches, causing all the blades to move at once; each blade vibrating between two spikes, passing out of one spike into the other, cutting the grain as it comes in between the spikes as the machine progresses; each double spike forming a bearing to resist the straw both below and above the edge of the blades. The crank which moves the blades is connected with the cog wheel on the main axle, which must necessarily cause the vibration of the blades to be in proportion to the speed of the horses, whether that be a walk or trot.

The motion of the machine forward, causes the heads of the grain to fall backwards on to the platform as it is cut; in this manner it accumulates on the platform in a heap leaving the stubble clean. The raker is seated on the main body of the machine with a rake of peculiar construction with which he pushes off the grain in separate heaps for binding. I cannot better describe the manner of using the rake than to say it is like padding a boat, except instead of putting the paddle into the water, he puts the rake into the grain which has accumulated on the platform, and slides it off in a body behind. It may appear on first consideration, that the bundles could not be distinctly separated while the grain is constantly falling; experience proves that there is no difficulty in this whatever, for the grain under the rake will readily pass from the machine without dragging with it any part of the next bundle. But the operation is still more complete when the rake, instead of being put down on the prostrate grain, is put down a few inches in advance of the cutters into the heads of the grain not yet cut; by this means, the bundle is swept clean off before other grain falls on the rake. The rake is used in this manner to great advantage, in lodged and tangled grain, also when the wind blows strong from behind, by way of assisting the grain on to the platform. Besides the raker, a boy is required to drive, who rides on the shaft horse. As heavy grain is cut as fast as light, the number of bundles will depend on the quantity of grain to the acre, and the speed of driving, say from 4 to 10 binders, as the case may be.

By several years experience, I have been enabled to add much to the durability of the machine, which I apprehend can now receive but little improvement further than I shall make this year. I manufacture machines in Baltimore, and my brother THOMAS R. HUSSEY, will manufacture them in Auburn, N. Y., this year. The machine is warranted to cut 15 acres of the heaviest wheat in a day, and save it much cleaner than is usually done by a good cradler, and to cut the whole season without sharpening. The price at the manufactory is $150. The following certificates are from gentlemen of the highest respectability.

OBED HUSSEY.

Baltimore, Md., April 10, 1841.

(We here omit a number of certificates for want of room.)

—

This may testify that I have used a Reaping Machine manufactured at Auburn, N. Y., by Thomas R. Hussey. I cut my crop of grain to my entire satisfaction—it cuts clean and rapidly, and is equal to the recommendation given. I can with confidence recommend it to all farmers, and can say to all wheat growers, try Hussey's machine.

JOHN B. DILL.

Auburn, October, 1841.

The Weather--Transplanting Trees--The Springport Pippin--Planting Beet Seed.

[*In a letter from Cayuga county.*]

In my remarks on the weather, in the last number of this journal, a *misprint* occurs which spoils the sense. I was remarking that *both* wet and dry weather often occur at the *same time*, on the *same meridian*, or in the *same latitude*; and am then made to say, not unfrequently even in the same "*country*." *County* was the proper word. I wanted to show that two neighborhoods, *only a few miles apart*, might fare very differently in regard to supplies of rain; and had particularly in view, the weather last summer when the ground was parched at Aurora, but saturated with repeated showers near Cayuga Bridge, only twelve miles to the north. The inference seemed to be inevitable that the moon could have had no agency in the affair.

TRANSPLANTING TREES.

An eminent horticulturist ascribes the loss of nine-tenths of the trees that perish by transplanting, to cavities that are left between the roots when the earth is carelessly shoveled in; and recommends that a pail-full of water be dashed round each tree after it is planted, in order to wash down the loose soil, and fill up every vacancy. For such trees as have been transplanted this spring, it is not too late even yet to perform the operation.

I have just made an addition of some fifty or sixty trees to my fruit garden. It was most convenient to defer the watering for several days; and as the ground was sufficiently moist, no injury could arise from the delay. The first dash of about two quarts, sunk rapidly into the soil, indicating the looseness of its texture; but every succeeding application soaked away slower and slower, till it showed, by standing on the surface, that every cavity was filled. When this was done, to prevent the ground from *baking*, we scattered over it a slight covering of mellow earth.

THE SPRINGPORT PIPPIN.

Fruit, middle size, oblong, and slightly ribbed. *Eye*, small, closed, in a wrinkled depression. *Stalk*, very short, in a deep narrow cavity. *Skin*, yellow,—on the sunny side passing into a blush, and sparsely dotted with brown. *Flesh*, yellowish white, subacid inclining to sweet, firm but juicy, and excellent. A winter fruit.

This variety originated about three miles from this place, in the town of Springport, on the farm of Abraham Burlew, and is fast coming into favor. He exhibited some of the fruit last fall at the Cattle Show in Auburn, and a discretionary premium was awarded by the Cayuga County Agricultural Society. I am propagating it in the nursery.

PLANTING BEET SEED.

Last season, owing to the severity of the drought, beet seed failed to germinate in some fields; and some farmers were entirely disappointed of a crop. As beets are believed to rot more in winter when planted early, it may be prudent to defer the business for a few weeks; and if the following directions are observed, there will be but little risk in obtaining a crop.

Let the ground be well manured, and thoroughly pulverized by repeated ploughings and harrowings, not forgetting that the *deeper* and *finer* the soil is made, the more water it will hold, and in many cases *catch the whole of a summer shower*. There may be at least two harrowings to one ploughing. If the ground be too dry to start the beet seed immediately, have the lines where the beets are to stand, marked off; and then with a hoe or other instrument draw a small trench about two inches deep. Every thing being thus prepared, wait till a shower occurs, which in this climate, will rarely be necessary to do for many days; and as soon as the soil is soaked to the depth of an inch or more, *scald the seed* without delay, and then get them in with all possible expedition. In covering, be careful to apply only the wet ground near the surface; and if the seeds be covered *an inch* deep, they will be surrounded by wet soil at least to the depth of two inches, which will be sufficient with the scalding to give them a good start.

Some persons may prefer *soaking in warm water* to scalding—every one to his fancy; but I have frequently succeeded well when I have applied two quarts of scalding water to the seeds in one vessel, letting them soak there for several days. After the seeds are started in this way, however, they should only be planted in moist earth; or in dry earth to be made moist by an immediate watering.

The Wheat Crop in Western New York never appeared more promising. We observe similar reports from the Western States and all parts of the country. Fruit trees in this vicinity are remarkably forward and promise great abundance if they escape May frosts.

AGRICULTURAL MUSEUM.

It has been proposed to establish in Rochester an Agricultural Museum, which may presently grow into a Museum of Natural History. With this view the subjoined memorial has been presented to the Legislature of the State, who have at their disposal specimens of all the geological formations, fossil remains, minerals, and soils in the State, in the hope that they will effectually aid this patriotic object by furnishing from their duplicates a complete suite; and likewise that they will add to these, botanical specimens, and likewise the books, plates, and maps connected with the geology and topography of the State and published by their authority. This museum is to be considered as the property of Western New York; and it is hoped that the Agricultural Societies of this district will further the object. It would be difficult to point out a mode of disposing of these collections, more advantageous to the public and more conducive to the particular ends had in view in the establishment of these Geological and Botanical Surveys, than by such a disposition of them, and by the formation of three such Museums, one at Rochester for Western, one at Albany, Syracuse, or Utica for Central, and one at New York city for Southern New York.

We have no expectation of accomplishing any great object at once, but it can never be too soon to commence a good enterprise; and if the State will begin with the nest egg, there can be no doubt that the public sentiment, thus encouraged, will cherish it. We cannot have a question of the co-operation of the city, and that when the enterprise is fairly undertaken with a resolution to be successful, they will promptly furnish an accommodation for an object so honorable and useful.

To the Agricultural Community, the institution would bring immense benefits. That knowledge of minerals, soils and plants, can be obtained in a day from an actual inspection of the things themselves, which could not be got from books alone in a year. So too as it respects machinery and models. Nothing will do so much towards introducing among us the best implements, and towards improving those which we already have in use, as an actual observation of the varieties, which have already been produced and used, and the improvements already made; and it is reasonable to think that the mechanics of the country and the inventors of useful machines, will gladly embrace the favorable opportunity, which would be thus presented, of bringing them into public notice.

The specimens of the various agricultural products, capable of preservation, must be of immense value to the farmers. In Lawson's celebrated Agricultural Museum of Edinburgh, founded by individual enterprise, they show more than eighty distinct varieties of wheat, twenty varieties of barley, and thirty-six of oats, together with many varieties of rye, millet, maize, leguminous plants, such as beans and peas, and dried specimens of many different grasses and other plants. Now it is easy to see what extraordinary benefits the agriculturist would derive from seeing these varieties and being able to compare them with each other; or even from a mere collection of the weeds in the state, which are pernicious to cultivation.

Very great advantages would be derived, likewise, from a collection of specimens of all the woods in the state, and we shall take occasion in this case to refer to a plan for presenting these varieties suggested by the philanthropist Vattemare, when he was in this country. This was, out of the wood of every tree in the state or country to form a book, or rather procure a specimen in the shape of a book. The bark should be left in its natural state for the back of the book; the sides and ends should be planed and polished to show the grain and color of the wood. The book should be made to open in two parts by means of small hinges on the back. The inside should be hollowed out; and on one side should be placed the leaf of the tree, its flower, and its fruit if capable of preservation, and on the other side should be given a short written account of the tree, its botanical description, its location and its uses.

We have the strongest confidence that the Legislature will see the reasonableness of this request and the value of the object, and heartily lend us their aid. At the last annual meeting of the Monroe Agricultural Society, one farmer, distinguished for his good cultivation, exhibited a great many different varieties of wheat. It is hoped at the coming show this will be done by many farmers, presenting specimens in the sheaf and in the grain, and likewise specimens of the other grains and grasses. The different varieties of Indian corn raised in the country would make an interesting and highly useful exhibition.

MEMORIAL.

To the Legislature of the State of New York.

The subscribers, a committee of the Monroe County Agricultural Society, appointed for this purpose, respectfully represent—

That, at a late meeting of the said society, it was unanimously voted to commence, at the city of Rochester in said county, the establishment of a Museum of Agriculture, Manufactures, and the useful Arts—to be located at Rochester, and to be the property and under the direction of said Society and such other Agricultural Societies in Western New York as may see fit to join in the enterprise, &c. for public purposes only.

I. It is proposed that such museum should embrace specimens in Geology, including minerals, fossil remains, rocks, earths, soils, &c., and especially all such as belong to, and would contribute to illustrate, the agricultural and manufacturing resources of the State.

II. That it should embrace, as far as they are capable of being preserved, specimens of all the Agricultural products of the State, including grains, fruits, plants, vegetable productions, and specimens in Botany of every kind, and whatever in any way may serve to illustrate the natural history of the State.

III. That it should likewise embrace models or examples of agricultural implements, machinery and buildings, and likewise of those designed for manufacturing purposes.

IV. That it should likewise embrace samples and specimens of the domestic and household manufactures of every kind in the State.

Your memorialists believe that such an establishment would prove in the highest measure beneficial to the citizens of the State, and as honorable as it would be useful; that it would greatly develope the Agricultural and manufacturing resources of the state, and in a manner to impart much useful knowledge; that it would quicken inventive genius, and aid essentially the cause of general and useful improvement.

The means of your memorialists in this matter are extremely limited; but in so useful an undertaking, they look for the encouragement of the public-spirited and patriotic; and especially, as laying a sure and substantial foundation for the enterprise, they respectfully solicit the Legislature to grant them, from the collections of the Geological Surveyors of the State, and those persons otherwise engaged by its authority in illustrating its natural history, wherever there are duplicates, (which duplicates are understood to be numerous) a specimen of every thing now in possession of the Government, or which the Government may hereafter derive from the same sources, which may serve to illustrate its geology and its natural history, embracing also the books and maps and plates and illustrations published by the Authority of the Legislature.

In behalf of the Monroe County Agricultural Society.

HENRY COLMAN, E. DARWIN SMITH,
HENRY M. WARD, L. B. LANGWORTHY,
M. B. BATEHAM.

Rochester, Feb. 22, 1842.

Nothing is said to be more effectual in taking down swellings, than a soft poultice of stewed white beans, put on in a thin muslin bag, and renewed every hour or two.

CATTLE SHOW AND FAIR

Of the New-York State Agricultural Society, to be held at Albany, Sept. 28 and 29, 1842.

List of Premiums for 1842.

ON CATTLE.

I. BULLS—*Of any breed, 3 years old and over.*
For the best,..... $20 | For the third best, ... $6
For the second best .... 12 | For the fourth best, *Diploma.*

II. BULLS—*Of any breed, over two and under three years old.*
For the best,..... $20 | For the third best,..... $8
For the second best,.... 12 | For the fourth best, *Diploma.*

III. BULLS—*Of any breed, over one and under two years old.*
For the best..... $12 | For the third best,..... $5
For the second best,..... 8 | For the fourth best, *Diploma.*

IV. BULL CALVES—*Of any breed.*
For the best,..... $10 | For the second best,... $5
For the third best, *Diploma.*

V. COWS—*Of any breed, 3 years old and upwards.*
For the best ..... $20 | For the third best,.... $8
For the second best,.... 12 | For the fourth best, *Diploma.*

VI. HEIFERS—*Of any breed, over two and under three years old.*
For the best,..... $12 | For the third best,..... $5
For the second best,..... 8 | For the fourth best, *Diploma.*

VII. HEIFERS—*Of any breed, over one and under two years old.*
For the best,.....$10 | For the second best,.... $5
For the third best, *Diploma.*

VIII. HEIFER CALVES—*Of any breed.*
For the best,..... $10 | For the second best,.... $5
For the third best, *Diploma.*

IX. COWS—*Cross between the native and improved breeds.*
For the best,..... $12 | For the third best,..... 6
For the second best,.... 9 | For the fourth best, *Diploma*

X. HEIFERS—*Cross between the native and improved breeds, between two and three years old.*
For the best,..... $10 | For the third best,..... $5
For the second best,..... 8 | For the fourth best, *Diploma.*

XI. HEIFERS—*Cross between native and improved breeds, over one and under two years old.*
For the best,..... $10 | For the second best,.... $5
For the third best, *Diploma.*

XII. COWS—*Native breeds.*
For the best,..... $10 | For the third best,..... $5
For the second best,..... 8 | For the fourth best, *Diploma.*

XIII. HEIFERS—*Native breeds, between two and three years old.*
For the best,..... $10—For the second best,.... $5
For the third best, *Diploma.*

XIV. HEIFERS—*Native breeds, between one and two years old.*
For the best,..... $10 | For the second best,... $5
For the third best, *Diploma.*

The greatest combination of those points or properties which indicate milking qualities and an aptitude to take on flesh on the more valuable parts, together with general beauty of form, (size in itself not being considered a criterion of excellence,) will be the considerations which will govern the viewing committee in awarding premiums in the above classes.

XV. DAIRY COWS—*Of any breed.*
For the best dairy cow, from which shall have been produced, in thirty successive days, the greatest quantity of butter—quality as well as quantity considered—which shall be exhibited at the time $15—For the second best,... $10
For the third best, $5.

No premium will be awarded unless an accurate statement of the manner of feeding the cow, management of the milk, and method of making the butter, the time it was made, the breed of the cow if known, the time after calving; the cow as well as the butter to be exhibited at the time, with certificates from the person or persons who milked and managed the cream, and churned the butter.

WORKING OXEN—*Over 4 years old.*
For the best pair,..... $20 | For the third best,..... $8
For the second best,.... 12 | For the fourth best, *Diploma.*

STEERS—*3 years old.*
For the best pair,.... $ 5 | For the third best,..... $5
For the second best,.... 12 | For the fourth best, *Diploma.*

In awarding this premium, particular reference will be had to the close matching, excellent training, and docility of the animals, as well as their general good appearance.

FAT CATTLE.
For the best fat ox, cow or steer, $20.
For the second best,... $12 | For the third best,.... $8

FAT SHEEP.
For the best wether,.... $10 | For the second best, ... $5
For the third best, *Diploma.*

Applicants for the premiums on fat cattle and sheep must furnish a statement of the manner of feeding the

animal, the kind, quantity and cost of food, to entitle them to the premiums.

TO BREEDERS.

To the breeder of the best Bull, class I,..... $10
To the breeder of the best Cow, class V,..... 10
To the breeder of the best Heifer in class VI,.. 10

ON HORSES—*Over 4 years old.*

For the best Stallion,... $20	Best breeding mare & colt $20
For the second best,.... 12	For the second best,.... 12
For the third best, ... 8	For the third best,..... 8
For the fourth best, *Diploma.*	For the fourth best, *Diploma.*

For the best pair of matched Horses, $15.

For the second best,... $10	For the third best,..... $5

Three years old Studs and Mares.

For the best Stud,..... $10	For the best Mare,..... $10
For the second best,.... 5	For the second best 5
For the third best, *Diploma*	For the third best, *Diploma.*

A variety of horses possessing size, strength, and endurance for field labor, combined with that action which qualifies for the carriage or saddle—in short the horse *of all work*, is probably the most profitable class which our farmers can now engage in rearing, and to such, therefore, will the preference of the Society be given.

SWINE—*Over 10 months old.*

For the best Boar,... $10	For the best breeding sow $10
For the second best,.... 8	For the second best,.... 8
For the third best,..... 5	For the third best,..... 5
For the fourth best, *Diploma.*	For the fourth best, *Diploma.*

In awarding premiums on hogs, reference will not be had exclusively to size or to present condition, but to that form and that proportion of bone and offal to more valuable parts, which promises the greatest value from the least amount of feed.

SHEEP—I. Long Wooled.

For the best Buck,.... $10	For best pen of 3 Ewes, $10
For the second best,.... 8	For the second best,.... 8
For the third best,..... 5	For the third best,..... 5
For the fourth best, *Diploma.*	For the fourth best, *Diploma.*

II. Middle Wooled.

For the best Buck,.... $10	For best pen of 3 Ewes, $10
For the second best,.... 8	For the second best,.... 8
For the third best,..... 5	For the third best 5
For the fourth best, *Diploma.*	For the fourth best, *Diploma.*

III. Fine Wooled.

For the best Buck,.... $10	For best pen of 3 Ewes. $10
For the second best,.... 8	For the second best,.... 8
For the third best..... 5	For the third best,..... 5
For the fourth best, *Diploma.*	For the fourth best, *Diploma.*

The term "long wooled" is designed to include the Leicesters, Lincolns, Cotswolds, and all the English varieties of sheep which furnish the quality of wool suitable for combing—the "middle wooled," the South Down, Norfolk, Dorset, Cheviot, native, &c.—the "fine wooled," the Spanish and Saxon varieties of the Merino and some of their crosses.

FARM IMPLEMENTS.

For the best *Plow*,.... $30	Best *Threshing Machine*, $20
For the second best,.... 20	For second best,..... 10
For the third best,..... 10	For the third best, *Diploma.*
For the fourth best, *Diploma.*	For the best *Horse Rake*... 8
For the best *Harrow*,.... 8	For the second best,..... 5
For the second best,.... 5	For the third best, *Diploma*
For the third best, *Diploma.*	Best *Fanning Mill*,..... 8
For the best *Cultivator*,... 8	For the second best,..... 5
For the second best,..... 5	For the third best *Diploma.*
For the third best, *Diploma.*	For the best *Straw Cutter*,. 8
For the best *Drill Barrow*,. 8	For the second best,..... 5
For the second best..... 5	For the third best, *Diploma.*
For the third best, *Diploma.*	Best improved *Ox Yoke*,... 5
	For the second best, *Diploma.*

ON SILK.

Best half bushel *Cocoons*, $15	For the third best, ... $5
For the second best,..... 10	For the fourth best, *Diploma*
For the third best,..... 5	Best specimen *Manf'd Silk* 15
For the fourth best, *Diploma.*	For the second best,.... 10
Best pound of *Reeled Silk*, 15	For the third best,..... 5
For the second best,.... 10	For the fourth best, *Diploma*

SILK REEL.

For the best,..... $10	For the second best, *Diploma*

BUTTER AND CHEESE.

For the best sample of Butter, not less than 80 pounds, $20	For the best sample of Cheese, not less than 100 pounds, ... $20
The second best,..... 12	The second best,..... 12
The third best,..... 8	The third best,..... 8
The fourth best,..... 5	The fourth best,..... 5
The fifth best, *Diploma.*	The fifth best, *Diploma*

The butter offered for premiums may be presented in butter tubs, jars or firkins.

The claimant for premiums on butter, must state in writing the time when it was made; the number of cows kept on his farm; his mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substances have been employed; the best time for churning and keeping butter in hot weather; and the best mode of preserving it in and through the summer and winter, and in what vessels.

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese is made from one, two or more milkings; whether any addition is made of cream; the quantity and kind of salt used; the quantity of rennet used and the mode of preparing it; the mode of pressure and the treatment of the cheese afterwards.

FIELD CROPS.

Best crop of *Wheat*, not less than one acre,.. $15	Best crop *Indian Corn* not less than one acre $15
The second best,..... 10	The second best,..... 10
The third best,..... 5	For the third best,..... 5
The fourth best, *Diploma.*	The fourth best. *Diploma.*

For the best crop of *Barley*, not less than one acre, $10

The second best,..... $5	The third best, *Diploma*

For the best crop of *Rye*, not less one acre, $10.

The second best,..... $5	The third best, *Diploma.*

For the best crop of *Oats*, not less than one acre $10

The second best,..... $5	The third best, *Diploma.*

For the best crop of *Potatoes* for the table, not less than one acre, 10 dolls.

The second best,..... $5	The third best, *Diploma.*

For the best crop of *Potatoes*, quantity considered, not less than one acre, 10 dolls.

The second best,..... $5	The third best, *Diploma.*

For the best crop of *Beets*, not less than one acre, 10 dolls

The second best,..... $5	The third best, *Diploma.*

For the best crop of *Ruta Baga*, not less than one acre. $10.

The second best,..... $5	The third best, *Diploma.*

The best crop of *Carrots*, not less than one acre, $10.

The second best..... $5	The third best, *Diploma*

The best crop of *Peas*, not less than one acre, $10.

The second best, ...$5.	The third best. *Diploma.*

Those who present claims to premiums for farm crops must state in writing the following particulars: The condition of the soil at the commencement of cultivation for the crop; the previous cultivation, product and manure used upon it; the quantity and kind of manure the present season; the quantity and sort of seed used; the time and manner of sowing, cleaning, and harvesting the crop; the amount of the crop determined by actual measurement; and the expense of cultivation. The land shall be measured by some sworn surveyor, and the claimant of the premium, with two other persons who assisted in measuring, shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor.

MAPLE SUGAR—50 lbs.

The best specimen,.... $15	The third best,..... 5
The second best,..... 10	The fourth best, *Diploma.*

Applicants for the premiums on maple sugar will be required to furnish a statement of the manner of making and clarifying the sugar.

DISCRETIONARY PREMIUMS

will be awarded for such implements and products, not enumerated above, as shall be deemed worthy of notice and encouragement.

HORTICULTURAL PRODUCTS, &c.

The list of premiums on horticultural and household products will be published next month.

PREMIUMS FOR ESSAYS.

I. The best popular treatise on Agricultural Chemistry $100
II. The best essay on the Rotation of Crops, best suited to the soils of this state,..... 20
III. The best essay on the General Management of the Farm,..... 20
IV. The best essay on the introduction of New Agricultural Products,..... 20
V. The best essay on the Management and Application of Manures,..... 20

TO ARTISTS.

I. To the painter of the best specimens of Original Portraits of Domestic Animals—*A Gold Medal.*
II. To the engraver of the best specimens of Portraits of Domestic Animals on wood—*A Gold Medal.*

PUBLIC SALE OF STOCK.

On Friday, Sept. 30, there will be a public sale of stock; gentlemen wishing to dispose of their stock are requested to enter them with the Recording Secretary previous to the 15th Sept., that the catalogues may be prepared in season.

RULES AND REGULATIONS.

Applicants for premiums are requested to pay particular attention to the notes attached to the premiums on Dairy Cows, Fat Cattle and Fat Sheep, Butter and Cheese, Field Crops, Maple Sugar, and to the following regulations.

All persons who intend to exhibit cattle, horses, sheep or swine, should give notice to Luther Tucker, Recording Secretary, Albany, previous to the 15th September, in order that the necessary accommodations may be made for them; and all animals must be on the ground by 9 o'clock of the 28th.

All persons intending to compete for the premiums on plows, must send their plows to the Recording Secretary, Albany, previous to the 1st of August next, that the committee may have opportunity to test them thoroughly, and at such times and places as they may think best, and be prepared to report at the Fair.

All other agricultural implements must be sent as above, on or before the 26th of September, that the committee may have an opportunity to test them the day before the exhibition.

The statements required from those who compete for field crops, must be sent to the Recording Secretary, Albany, previous to the 1st of January, 1843, and the premiums will be awarded at the annual meeting of the Society, on the third Wednesday in January.

It is very desirable that all those who intend to compete for the premiums on butter and cheese, maple sugar, cocoons, silk, &c., should have their specimens in Albany early on the morning of Sept. 27, that they may be deposited in their appropriate places, and the rooms suitably arranged on the day previous to the Fair.

All premiums will be paid in cash or plate at the option of the winners.

The premiums for essays, to artists, and for agricultural implements, will be open to the United States; but all others will be confined to residents of this state, who are members of the Society, or who may become so by the payment of one dollar on entering their articles.

Competitors for the premiums on essays must forward their manuscripts to the Recording Secretary, Albany, previous to the first of June, 1842, free of postage.

A Doubter.

The philosophic Tucker divides mankind into two great families, the Knowalls and the Searches. Our correspondent S. W. places our friend David Thomas among the latter, a very respectable connexion indeed, but not a numerous one. We suspect that some of the same blood runs in his own veins. The Knowalls in this world have a remarkable comfortable time of it; but the Searches, a meddlesome set of dogs, are always making difficulty for other people and never satisfied themselves. O! for a pope and an infallible church—in agriculture we mean—certainly we would not say any thing about a Babylonish lady, whose character and pretensions have been among the saints so long a matter of discussion. But if we only had an infallible agricultural head, every thing would be quiet and comfortable; this terrible inkshed would cease; and our quills, instead of being worn to the stump in inditing many a goose's lucubrations, might repose quietly in the wings of those branches of the family to whom they originally belonged.

"D'Alembert said that the first qualification for a Philosopher was the faculty of doubting. As marvelousness induces us to embrace every absurd improbable theory, so does the faculty to doubt enable us to scan every theory, both by the tests of scientific proof and the sober lessons of practical experiment. David Thomas is clearly one of the number of those individuals in whose mind this cardinal qualification of the philosopher is most fully developed. In some of his communications on botany, he has sometimes noticed the small blunders and marvelous conceits of certain *connoisseur* writers, with a spice of humor and pleasantry suited to the nature of the offence; but in this address, given in this month's Farmer, which relates to the all important theory of the nature and action of manures, he has taken up the theory of Professor Liebig, in relation to the mysterious action of plaster on vegetation, and shown most conclusively from his own experience, and the general experience of our whole rural population, that the theory of the learned professor is at least shaken by long established and often repeated experiments. S. W."

It is a curiosity to find a man who places too low an estimate on his own abilities.

Sugar from Indian Corn and Stearine from Lard.

We have received from the Commissioner of Patents, always on the alert to collect and diffuse useful information, an Essay on the manufacturing of Sugar from the corn stalk by William Webb of Wilmington, Delaware; and a communication on the subject of Oil and Stearine from Lard—in a pamphlet published by the National Agricultural Society. They are highly interesting and valuable. We shall select only those parts which are directly practical; omitting such as may be considered too scientific for general readers. The prospects which they hold out, especially in respect to the product of sugar from maize, are very highly encouraging. The first step only in the process is as yet taken; and especially it remains to be seen what are to be the expenses of the process. It is confidently stated that eight hundred or a thousand pounds of sugar may be produced upon an acre of corn, planted as Mr. Webb directs. We shall be ready to believe it when it is done; in the mean time we design not the slightest impeachment of Mr Webb's integrity and intelligence, and entertain no distrust or doubt, which should interfere with the immediate and faithful trial of the experiment. Heaven grant that these expectations may be realized on the score of humanity if for no other reason, if human comfort is taxed and human life used up so cruelly and so prodigally, as it is in this pamphlet represented to be in the manufacture of sugar from the cane.

"I have felt considerable interest in the plan for extending the cultivation of sugar in temperate climates, and have made many experiments: first, upon the Beet, and recently upon Maize, or Indian corn, in the hope of discovering some mode by which the desired end might be attained. The results from the latter plant have been extremely encouraging. The manufacture of sugar from it, compared with that from Beet, offers many advantages. It is more simple, and less liable to failure. The machinery is less expensive, and the amount of fuel required is less by one-half. The quantity of sugar produced on a given space of ground is greater, besides being of better quality.

"The raw juice of Maize, when cultivated for sugar, marks 10° on the saccharometer while the average of cane juice (as I am informed) is not higher than 8°, and beet juice not over 3°. From 9¾ qts. (dry measure) of the former, I have obtained 4 pounds 6 ounces of syrup, concentrated to the point suitable for crystalization. The proportion of crystalizable sugar appears to be larger than is obtained from cane juice in Louisiana. This is accounted for by the fact, that our climate ripens corn perfectly, while it but rarely if ever happens that cane is fully matured. In some cases the syrup has crystalized so completely, that less than one sixth part of molasses remained. This, however, only happened after it had stood from one to two months. There is reason to believe that if the plant were fully ripe, and the process of manufacture perfectly performed, that the syrup might be entirely crystalized without forming any molasses. This perfection in the manufacture cannot however be attained with the ordinary apparatus. Without any other means for pressing out the juice than a small hand-mill, it is impossible to say how great a quantity of sugar may be produced on an acre. The experiments have been directed more to ascertain the saccharine quality of the corn stalk, than the amount a given quantity of ground will produce; but the calculations made from trials on a small scale, leave no room to doubt that the quantity of sugar will be from 800 to 1,000 pounds.

"Another mode of cultivation, to be employed in combination with the one first proposed, consists simply in raising a greater number of plants on the same space of ground. By this plan all the unfavorable results above mentioned were obviated; a much larger quantity of sugar was produced, and of better quality.

"The juice produced by this mode of cultivation is remarkably pure and agreeable to the taste. Samples of the sugar yielded by it are now in the Patent Office, with a small hand-mill by which the stalks were crushed.

"On the whole, there appears ample encouragement for perseverance; every step in the investigation has increased the probabilities of success—no evidence having been discovered why it should not succeed as well, if not better, on a large scale, than it has done on a small one. In the first place, it has been satisfactorily proved, that sugar of excellent quality, suitable for common use without refining, may be made from the stalk of Maize. 2d. That the juice of this plant when cultivated in a certain manner, contains saccharine matter remarkably free from foreign substances. 3rd. The quantity of this juice, (even supposing we had no other evidence about it) is sufficiently demonstrated by the great amount of nutritive grain which it produces in the natural course of vegetation.

"It is needless to expatiate on the vast advantages which would result from the introduction of this manufacture into our country.

"Grain is produced in the West, in such overflowing abundance, that the markets become glutted, and inducements are offered to employ the surplus produce in distillation. This business is now becoming disreputable. The happy conviction is spreading rapidly, that the use of alcohol as a beverage, instead of conducing to health and strength, is the surest means of destroying both. Some other production, therefore, will be required, in which the powers of our soil may be profitably employed. This, it is hoped, will be found in the business now proposed. Instead of distilleries, converting food into poison, we may have sugar houses, manufacturing at our doors an article in universal demand, not merely useful, but necessary; furnishing as it does one of the most simple, natural, and nutritious varieties of human sustenance, found in the whole range of vegetable production. It is said that the general use of sugar in Europe, has had the effect to extinguish the scurvy, and many other diseases formerly epidemical.

The time of the crop in the sugar island, (says Edwards,) is a season of gladness and festivity to man and beast. The meagre and sickly among the negroes exhibit a surprising alteration in a few weeks after the mill is set in action. But though the use of sugar is attended with all these agreeable effects, there is no agricultural production furnished at so great a sacrifice of human life. The reasons of this mortality may be found in the climate, and the peculiar situations in which cane is cultivated. How much then will be taken off the load of human suffering, if this article can be produced in more temperate and healthful regions! The wide praries, and fertile alluvial valleys of the West offer an ample field, rich with all the elements of success.

"It may be doubted whether a tropical country can ever furnish a great amount of exports, except through the means of compulsory labor. It appears then, highly probable, that if the inhabitants of temperate countries wish to continue the use of sugar, they must find some means to produce it for themselves. The Beet appears to succeed well in Europe, and the manufacture from it is extending rapidly; but there is no hazard in making the assertion that Indian corn is far better adapted to our purpose.

"The following mode of cultivating the plant, and making the sugar, is the best that can now be offered.

"The kind of soil best adapted to corn is so well understood, that no directions on this point are necessary, except that it should be rich, the richer the better; if not naturally fertile, manure must be applied either ploughed in or spread upon the surface, or used both ways, according to the ability of the owner. Nothing can form a better preparation for the crop, than a clover sod well turned under, and harrowed fine immediately before planting.

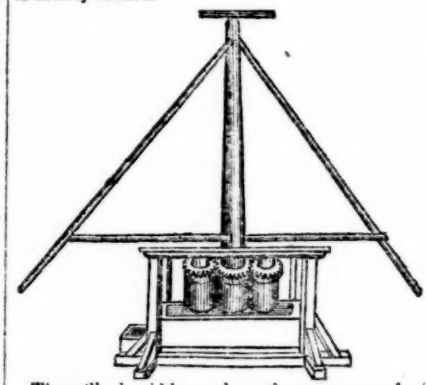
"Select for seed the largest and best ears of any variety of corn not disposed to throw up suckers, or spread out in branches; that kind most productive in the neighborhood, will be generally the one best adapted to the purpose. The planting should be done with a drilling machine. One man with a pair of horses, and an instrument of this kind, will plant and cover, in the most perfect manner, from ten to twelve acres in a day. The rows (if practicable, let them run north and south) two and a half feet apart, and the seed dropped sufficiently thick in the row to insure a plant every two or three inches.

"A large harrow made with teeth arranged so as not to injure the corn, may be used to advantage soon after it is up. The after culture is performed with a cultivator, and here will be perceived one of the great advantages of drilling; the plants all growing in lines, perfectly regular and straight with each other, the horse-hoe stirs the earth and cuts up the weeds close by every one, so that no hand-hoeing will be required in any part of the cultivation.

"It is a part of the system of cane planting in Louisiana, to raise as full a stand of cane upon the ground as possible: experience having proved that the most sugar is obtained from the land in this way." As far as my experience has gone, the same thing is true of corn. This point must therefore be attended to, and the deficiencies, if any occur, made up by timely replanting.

"The next operation is taking off the ears. Many stalks will not produce any, but wherever they appear, they must be removed. It is not best to undertake this work too early; as when the ears first appear, they are tender, and cannot be taken off without breaking, which increases the trouble. Any time before the formation of grain upon them, will be soon enough.

"Nothing farther is necessary to be done until the crop is ready to cut for grinding. In our latitude, the cutting may commence, with the earlier varieties, about the middle of August. The later kinds will be ripe in September, and continue in season until cut off by frost. The stalks should be topped and bladed while standing in the field. They are then cut, tied in bundles, and taken to the mill. The tops and blades, when properly cured, make excellent fodder, rather better it is believed, than any hitherto used; and the residuum, after passing the rollers, may easily be dried and used in the same way; another advantage over the cane, which, after the juice is expressed, is usually burned.



The mills should be made on the same general principle employed in constructing those intended for grinding cane. An important difference, however, will be found both in the original cost, and in the expense of working them. Judging from the comparative hardness of cane and corn stalk, it is believed that one-fourth part of the strength necessary in the construction of a cane mill, will be amply sufficient for corn; and less than one-fourth part of the power will move it with the same velocity. It may be made with three upright wooden rollers, from twenty to forty inches in length, turned so as to run true, and fitted into a strong frame work, consisting of two horizontal pieces sustained by uprights. These pieces are mortised to admit wedges on each side the pivots of the two outside rollers, by which their distances from the middle one may be regulated. The power is applied to the middle roller, and the others are moved from it by means of cogs. In grinding, the stalks pass through on the right side of the middle cylinder, and come in contact with a piece of frame work called the dumb returner, which directs them backwards so that they pass through the rollers again on the opposite side of the middle one. (See cut.) The modern improved machine is made entirely of iron; three horizontal rollers arranged in a triangular form, one above and two below, the cane or stalk passes directly through, receiving two pressures before it escapes. The lower cylinders are contained in a small cistern which receives the juice. The latter machine is the most complete, the former the least expensive. These mills may be moved by cattle, but for large operations, steam or water power is preferable. When the vertical cylinders are turned by cattle, the axis of the middle one has long levers fixed across it, extending from ten to fifteen feet from the centre. To render the arms firm, the axis of this roller is carried up to a considerable height, and oblique braces of wood by which the oxen or horses draw, are extended from the top of the vertical axis, to the extremities of each of the arms. When horizontal cylinders are propelled by animal power, the upper roller is turned by cogs at one end, which are caught by cogs on a vertical shaft. It is said that in the West Indies, the purest cane juice will ferment in twenty minutes after it enters the receiver. Corn juice has been kept for one hour before boiling, without any apparent injury resulting;

but so much delay is not desirable, as it may be attended with bad effects.

"The process which has been employed in the manufacture of Maize sugar, is as follows: The juice, after coming from the mill, stood for a short time to deposite some of its coarser impurities; it was then poured off, and passed through a flannel strainer, in order to get rid of such matters as could be separated in this way. Lime water, called milk of lime, was then added in the proportion of one or two table spoon's full to the gallon. It is said by sugar manufacturers, that knowledge on this point can only be acquired by experience; but I have never failed in making sugar from employing too much or too little of the lime. A certain portion of this substance, however, is undoubtedly necessary, and more or less than this will be injurious: but no precise directions can be given about it. The juice was then placed over the fire, and brought nearly to the boiling point, when it was carefully skimmed, taking care to complete this operation before ebullition commenced. It was then boiled down rapidly, removing the scum as it rose. The juice was examined from time to time, and if there was an appearance of feculent particles which would not rise to the surface, it was again passed through a flannel strainer. In judging when the syrup was sufficiently boiled, a portion was taken between the thumb and finger, and if when moderately cool, a thread half an inch long could be drawn, it was considered to be done, and was poured into broad shallow vessels to crystallize. In some cases crystallization commenced in twelve hours; in others, not till after several days: and in no case was this process so far completed as to allow the sugar to be drained in less than three weeks from the time of boiling. The reason why so great a length of time was required, I have not yet been able to discover. There is no doubt but that an improved process of manufacture will cause it to granulate as quickly as any other.

"Enough has been said to enable any one so disposed to manufacture sugar from Maize, either on a large or a small scale. As to the profits of the business, I shall make no positive assertions; experience on the subject is yet too limited to warrant them; and as all the facts in relation to it are now before the public, every one interested can draw his own conclusions. It is said by those acquainted with the cultivation of the cane, that that business cannot be carried on profitably on less than one hundred acres in crop, and that attempts on a small scale will be certain to fail with a great loss of time and labor. How far this may be applied to corn, remains to be seen.

"Some comparison between the cultivation of cane and that of corn may perhaps be interesting.

"The cane lands in Louisiana are redeemed to agriculture, by strong embankments along the river, and by numerous ditches, which extend back into the swamp to a considerable distance beyond the line of cultivation. The ground is still further divided by smaller ditches into lots of from one to two acres in extent. It is extremely rich and productive; but the expense of draining, and keeping up the embankments, must be very considerable; this forms the first difference to be noted in the culture of the two plants under consideration.

"The best season for planting cane in Louisiana, is in the fall, which is also the time of harvest, when labor is most valuable, and the greatest exertions are required to secure the crop before it is destroyed by frost. But the most striking difference will be found in the cost of seed, and in the labor of planting. The cane is propagated by layers; these are partly furnished from the tops of the plant, when cut for grinding, but are principally rattoons. Of the latter, it requires the produce of one acre to plant three. The grain from one acre of corn will be sufficient for planting forty acres. Therefore, the difference in expense for seed, will be as one to thirteen.

"In planting cane, furrows are made with the plough from two and a half to three feet apart; in these the layers are placed in a double row, and the earth drawn over them with hoes to the depth of three or four inches. In the spring, before the plants are up, this covering is partly scraped off, so as to leave them buried from one to two inches.

"From this account, it is evident, that no more manual labor will be required to drill fifty acres in corn, than to plant one acre in cane. The labor of cultivating the latter plant during its growth, is also greater: but this may be balanced by the extra work required to take off the embryo ears from the corn. When cultivated in the mode recommended, the stalk of corn is soft, remarkably heavy, and full of juice from bottom to top. The amount of power required for grinding them must be much less than is necessary for cane—or, what is the same thing, an equal power will do it with greater rapidity. The average yield of cane in Louisiana, is one thousand pounds of sugar, and forty-five gallons of molasses per acre.

"From the above comparative statement, it would appear that one half this amount of crop from corn would be equally, if not more profitable.

I will only add in conclusion, that whether or not sugar from the corn-stalk may soon become an article of profitable export—its manufacture in the simplest form will enable every family to supply themselves with this article for common use, now become so much a necessary of life, and thus save a considerable bill of expense yearly paid for foreign sugars.

(Translated at the Patent Office, and highly confirmatory of Mr. Webb's Essay.

H. L. ELLSWORTH.)

Extract from Annales de la Societe Polytechnique Pratique, No. 22, for October, 1839.

Sugar or Corn.—There is no plant of greater general interest or utility than Indian corn. It can serve, under a great variety of different forms, for nourishment of man and the domestic animals, and above all, the application of industrious science.

In reference to its saccharine qualities, Maize has not been sufficiently appreciated. Travellers report, that under the tropics the stalk of this plant is so very saccharine that the Indians suck it as in other places they do the sugar cane.

M. Pallas, who has made a great many researches on this application of Maize, has arrived at a remarkable result—he has found by many experiments both in France, and more recently in Africa, that this vegetable, by a simple modification applied to its culture, is able to furnish a much more considerable quantity of sugar, than by the ordinary method.

This method consists in detaching from the plant, immediately after the fecundation of the ovaries (after the plant has tasselled) the young ear, and to leave it to develop itself thus deprived of its fruit. Arrived at maturity, the stalk of the Indian corn contains crystalizable sugar in quantity very often double that obtained when the plant is left to mature with the grain. In fact, by the ordinary mode of culture, the grain is nourished at the expense of the sugar in the stalk, as it absorbs a great quantity of this immediate principle, which, by the process of nutrition, is converted into starch. On the other hand, if the young ears are immediately destroyed, the sugar intended to nourish them remains in them where it accumulates, and the Maize plant is thus converted into a true sugar cane, while the fibrous part can be manufactured into paper.

The quantity of sugar is so very great in the stalk of the Maize deprived of the ear, that the pith of this vegetable retains a sensible flavor of sugar even after it has been dried, as is easily proved by examining the specimens deposited by M. Pallas in the Bureau of the Academy of Sciences. These results are so important as to merit experiments on a grander scale, which may obtain thus for France a source of new industry in the manufacture of sugar.

We give no extracts on the subject of obtaining Stearine from Lard for the purpose of making candles equal to wax, as it would not be generally intelligible and is adapted to the manufacture upon rather a larger scale than could be used in families, as the patentee advises that "To operate with advantage, the vessel in which the boiling is effected should be of considerable capacity, holding any from ten to a hundred barrels"—or about as large as a common log cabin. We have no reason to doubt the success of the process.

Carrots.

These are one of the most important crops a farmer can cultivate, whether for his dairy, young stock, sheep or swine, or whether they are considered as a crop which yields rich remuneration for his labor, or as one leaving his land in a healthful and active state when taken off. They succeed as well, and perhaps better, when sown successively on the same soil for many years. The ground for them should be deeply and thoroughly pulverized, and then they will send their long roots to a depth which the spade has not penetrated, thus to some extent, imitating the work of the subsoil plough by breaking the hard soil beneath them.

Carrots for stock should be sown early, before the spring and summer droughts, which are very injurious to them, come on. The best manure we know of for them, is that recommended in No 2, present vol. of N. G. Farmer, for gardens. If this is not convenient, mould from the woods answers a very good purpose. They must be thinned and kept very clean, which in fields may be done with a corn harrow or cultivator. W. B.

Mount Osceola, April, 1842.

Mulberry Trees and Silk Culture.

An old friend of ours, Geo. Dickinson of Deerfield, Mass., desires us to say that he has 100,000 of mulberry trees, of the Canton, Multicaulis, Moretti, and several hardy varieties, which he would be glad to dispose of on the most reasonable terms. The public mind must presently be aroused to the importance of silk raising and this most invaluable article of culture. The apathy and incredulity of the public in regard to it is deplorable. They seem now like a tired and foundered horse, whom you can neither by coaxing or driving even get into a trot. What may be accomplished under a new rider and since the Commissioner of Patents* has mounted the silk horse, with bright spurs and a new whip, we shall see. We only add that whoever deals with Mr. Dickinson, may, we are satisfied, rely entirely upon his honor.

The Le Roy Female Seminary.

Mr. Editor—In some of the early numbers of the New Genesee Farmer, a correspondent attempted to show that Female Seminaries of the present day are unsuitable places for farmers' daughters, and that a modern liberal education is calculated to make them dissatisfied with their country homes and rural life; and in your intercourse with the agricultural community, I doubt not that you find the same opinions quite prevalent, especially among those who, being destitute of a good education themselves, are ignorant of its true value and influence, and know nothing of those institutions against which they disclaim.

It is not my present intention to expose the fallacy and injurious tendency of such sentiments, but merely to express a regret that all who cherish them could not have the privilege which I enjoyed last week, of witnessing the examination at the Le Roy Female Seminary, under the management of Miss Emily E. Ingham, Principal. The catalogue of pupils for the past year shows the number to have been 232. The winter term closed on the 15th of April, with four days public examination. Each class in the school was examined separately and thoroughly in the various branches of study, and each pupil, excepting the junior class, read a composition of her own production. The proficiency and depth of research manifested by the pupils in their examinations, and the knowledge, talent and sentiment displayed in their compositions, reflected the highest credit on the teachers, and gave conclusive evidence that they had been eminently successful in their avowed aim, "to make thorough scholars, independent thinkers and reasoners, and useful members of society."

Many of the pupils are farmers' daughters, and if their parents were asked whether they think the instruction imparted at this institution is "calculated to make them discontented and unhappy," I have no doubt their reply would be in substance like the expression I heard made by a worthy farmer from Livingston, who had come to witness the examination and take home two lovely daughters, in parting with the principal and teachers his last words were, "my only regret is, that I have not more daughters to send you."

The next term of this Seminary commences on the first Wednesday of May. B.

*See his Report in our last number.

FLOWERS.

The following is a pretty boquet received from fair hands, which, we hope, will call others for our use, even sweeter and more fair.

For the New Genesee Farmer,

The following lines were suggested by the perusal of an article on Floriculture in a late number of the New Genesee Farmer.

I love the flowers, the fair young flowers,
Where'er their dwelling be;
Though springing on the mountain side—
Or 'neath the greenwood tree.

Though found in each sequestered nook,
Of every woodland shade;
Or blooming, 'mid the gay parterre,
By tasteful fingers made.

A pleasant task it is, I ween,
The fragile things to rear,
Whose wealth of verdant loveliness,
Life's weary hours may cheer.

To watch the opening buds that spring,
'Neath summer's genial showers;
Each striving in its blushing pride,
To bloom the fairest flowers.

And when at last the blossoms lie
All withered at our feet,
And lavish on the passing breeze
Their perfumed odors sweet;

There comes from every fading flower
A lesson for the heart,
That earth's most fair and lovely things
"The soonest must depart."

"For voiceless teachers are they all,"
And emblems too, of youth,
Its days of infant purity,
Its trusting years of truth.

And like the human flowers that spring
In beauty 'round our hearth,
'Till, fading from our sight away,
We know not half their worth.

J. L.

Rural Life and Pleasures.

Mr. Colman—

Your correspondent Zelia, says that our duty and interest should prompt us to bestow our co operation to make your columns instructive and interesting; and that this cannot be fully attained unless your female readers render some assistance.

With an imperfect education, I feel much diffidence in presenting you this communication. But since my education taught me to perform every known duty, I am most happy to render my part, humble as that may be. The offering, if not accepted for its intrinsic value, may be welcome for the good intentions which dictate it. I have not the vivid imagination and enviable sensibility of W. B., nor the fund of interesting ideas of Zelia; but I hope I may be allowed to claim for myself a grateful and holy reverence for my Creator, and a thirst for improvement in science, in literature, in floriculture and horticulture, in rural and domestic economy, and finally, in every thing that pertains to the developement of human virtue, the advancement of good morals and the present well-being and future happiness of mankind. An attention to flowers and shrubs, serves to inspire a taste for natural beauty every where, and for all that is delightful and lovely in the works of our Creator. It is our duty to cherish and strengthen and nourish the benevolent affections, and a sympathetic attachment for all that surround us. Much certainly is to be done for many of us, in order to prepare our minds for enjoyment in the works of nature, in erasing our false ideas and prejudices in relation to the true sources of our best and purest pleasures. A ramble through the green fields and over the hills, may be prompted by mere listlessness or accident, or if you please, by romance or fashion; and without some cultivated taste for rural scenery or some sympathy with nature, we may not feel in such case a single emotion of heart felt enjoyment, nor one grateful or reverential aspiration of the soul to heaven, for the infinite abundance and exquisite and countless forms of beauty which are spread around us.

But we cannot expect every one to look upon nature as in every department and object alive with the presence of God, nor to feel deeply conscious of the great source from whence these pleasures flow, and happy always in this recognition of the divine goodness. But I should rejoice, if any motive, even of an inferior character, would induce them to spend some part of their time in the fields and the garden and the forests, by the silver stream and by the mirrored lake, rather than that they should not do it at all. But in order to taste the deep and exhaustless fountains of pure bliss, enclosed, if I may so say, within the folds of every shooting plant, or under their full developed leaves, amidst all the secrets and all the wonders of vegetable life, we must feel and reflect and meditate upon the design and intentions, for which their author formed them, and the sublime and happy influences, with which they are capable of inspiring our minds. It is with peculiar pleasure I peruse an occasional line from the pens of a few of the many gifted females of our happy and privileged country. May they dig deep for the the rich stores of intellectual wealth within their reach, and bring them forth to adorn and bless the community. They cannot exert their talents too much in order to render rural scenery attractive and rural life delightful; and to show how much its pleasures and privileges are to be coveted.

Happy is the condition of that rural retreat, where the peaceful labors of agriculture and the calm pleasures of country life divide the hours; where abundance comes as the honest compensation of labor; contentment springs out of an innocent mind and a guiltless conscience, and simple mirth and youthful glee are but the pourings out of a full heart, like the bubbling and sparkling waters from a gushing spring. It is delightful to see the love of nature in her simplicity, in her beauty, in her variety, in her grandeur, in her glory, highly cultivated and strengthened; to pour our hearts out in grateful admiration and wonder at the exhibitions and testimonials of the divine bounty in the flowers, the forests, the fields, the fountains; in the multiplied forms of life every where crowding upon our sight, and every where manifesting their own enjoyment of existence; in the budding and flowering foliage of spring, in the golden and ripened harvest, in winter's glittering mantle, in the reddening dawn, in the gorgeous sunset, and in the star spangled night. When to such tastes as these are added stores of intellectual wealth, constantly increasing, the charms of unbroken and warm domestic affections, the mingling of sympathetic hearts, which in every kind and every elevated emotion, vibrate in harmony, and with all a deep and grateful sentiment of dependance and duty to the great and exhaustless source of all happiness, where on earth shall we look for a condition more privileged and blessed; what stimulants does it furnish to virtuous industry, and what alleviations to those pains and afflictions which are inseparable from our humanity.

FLORA.

Zelia—Domestic and Political Economy—Rural Taste, &c.

Mr. Colman—I felicitate you on the acquisition of such a female correspondent as Zelia; her lessons on domestic economy if lived up to, will do more towards curing hard times, and commencing a healthy social reform, than a hundred essays on political economy, or twice that number of common-place high tariff or home league resolutions; in fact, stern necessity alone is now dealing with the people, and bringing about that state of things which Zelia would effect by moral suasion, and the beauty of her own individual and may I not say, truly intellectual example.

Since "foreign goods and trinkets" cannot be paid for any longer in paper contrivances, prices in New York have fallen so ruinously low, that next to none will now be imported for the remainder of the fiscal year; and the great puzzle now is with our national financiers, how they are to raise a revenue at all, if they increase the present tariff of duties, since large quantities of foreign goods are now being reshipped to avoid the payment of our present tariff; what a blessed thing it is that all foreign balances against us can now only be paid in coin, as nothing short of this would have stopped importations; a call for specie strikes at the life of our Banks, and they are so averse to dying, that they had rather see all the ladies in the country go without brocade shawls and velvet cloaks, than to lose even a moitie of their coin.

Who is so blind as not to see in this state of things a better and more lasting encouragement to silk culture and home industry, than all the special legislation Congress could bestow in the shape of high tariff, or still more senseless retaliatory restrictions? What has England's high tariff restrictions done for her, but increase the volume of her population, her paupers and her poor rates? Her manufacturing industry has been stimulated by protection, until it was necessary to give to her agriculture like protection, in order to make her independent of other nations for bread, and also to stimulate the home market for her surplus manufactures. Let us then in these United States, with our vast territory, our endless rolling prairies, and superior sunny climate, be slow to think that we have the same need of restrictions on trade, as little, cold, wet, over populated Great Britain!

Zelia inculcates domestic simplicity and economy, in a manner which shews that she has arrived at the corner stone of political economy almost without knowing it; her lessons shew that simplicity in domestic arrangement, is the true handmaid to mental culture, that meretricious display and fashionable excess, can hardly conceal vulgarity of mind, or make up for a deficient education. I hope Zelia will write often for the Farmer; let her tell her log house sisters, to keep their scanty furniture "bright and clean"; a little white wash both within and without, a clambering vine, a grass plot, a garden with a few flowering shrubs and plants, will speak a much better civilization and mental culture, for the unknown inmates of that cabin, than the most ambitious farm house in the land.

S. W.

Floriculture.—Campanula rotundifola.

Mr. Colman—I have ever read with a great deal of interest the articles in your Journal on the flowers of spring, summer and autumn.

I have admired the unbiassed judgment and fine taste, which led the writer of these sketches to place—not only in his garden, but in his list of flowers—side by side with imported exotics, our native Hepatica triloba, Sanguinaria Canadensis, Lobelia cardinalis, and even the neglected Macrotrys racemosa, and many other native beauties usually overlooked.

But I have looked in vain for any reference to one lovely indigenous flower, and can only excuse this neglect of my favorite by supposing the gentleman a stranger to its existence. If this be true, I am certain he would not object to an introduction.

If on some bright day in June, he will go with me while my oxen rest from the plough, to one of the woody uplands of Genesee county, where the underwood is thickest and the soil so mixed with flints that a blade of grass can hardly grow, we should occasionally discover a little blue bell about the size of an acorn hanging on a stalk a few inches in length, and so slight as to be moved by every breeze. If he will

then return with me, I will show him the magical effects of cultivation on the same plant.

Two seasons have passed since one of these wild-flowers was transplanted to our garden. I hardly expected to see it live; but in the place of one low stalk, and one bell, from that same root we had, last summer, from June until October, a succession of flowers growing on stalks from two to three feet high, and often three bells on a stalk. I one day counted fifty.

Notwithstanding the change in the flower-stalks, the bells seem in no wise changed, but retain all their original delicacy, thus proving to a demonstration that they have not, like many other *belles*, been injured by admiration.

I know not its botanical name, or if it have any—I can admire it without one—but it has beauty enough certainly, to compensate for the longest and homeliest name that any Botanist ever invented. E.

Le Roy, March 11th, 1842.

The plant to which our correspondent refers, is one which we think from his account, we have seen and admired, and which we suppose claims the botanical name of *Campanula rotundifolia* or Flax Bell-flower. Its name, *campanula*, signifies its bell-shape. It is among a class of flowers easily transferred to the garden, and greatly improved by cultivation. Beck's Botany describes it thus: *Stem*, 8—12 inches high. Radical leaves cordate (withering early). *Flowers* few, large, blue, in a loose terminal panide or raceme. (If E. will send us one of the blossoms when they appear, in a letter or paper, he will oblige us, and we can ascertain the name.)

Large Breed of Hogs in Clyde.

Clyde, February 21st, 1842.

Mr Editor—

Dear Sir—I have a breed of hogs that grow to a large size, one of which about two and a half years old I killed on the 14th inst., that weighed when dressed 803 lbs., of which 74½ lbs. was lard, and the hams weighed 56 lbs. each.

I commenced feeding him about the middle of November with peas and corn, at which time he was in low condition. When alive, he measured 6ft. 8in. around his body just back of the fore shoulders. The weight of this animal sounds large to us in this neighborhood; and if you consider him deserving of it, you will no doubt pay him the compliment of a notice in your useful paper, the New Genesee Farmer.

Your ob't servant,

JOHN POTTS.

This hog certainly deserves a memorial, and is worthy of being an Emperor among his own countrymen. He must have taken a lesson of the frog, who tried to equal the ox, but with a good deal more success and without ending in the same unhappy explosion. He was as heavy when dressed as half the oxen that are killed. Our correspondent does not give his breed of swine a name; and it might be deemed uncivil to call them the Potts breed; but considering the value of such pork for boiling, we might be forgiven if we should call them the Pot Breed. That's "doing the thing to a t."

The Ne Plus Ultra.

Since giving a notice of the Clyde Breed of Hogs from Mr. Potts, we have received the subjoined from a correspondent in Maine. The Yankees may well call this the "Beatem;" and it will be a small affair for any other state to talk of "going the whole Hog" after this. The amount of loss in killing is very small and contradicts the usual experience.

Maine Pig vs. Genesee Pigs.

Mr. Adams, in the last number of the New Genesee Farmer, says "Mr. Marks had four Berkshires which weighed 1838 pounds, and Mr. Corter's two weighed 1040 pounds, when twenty months old." Now, Mr. Editor, I have a tale to tell worth two of that. Mr. Jameson, of this place, yesterday killed a pig twenty two months and twelve days old, which weighed alive 1010 pounds. Dressed he weighed 905 lbs—without the caul, that weighed thirty eight and a half pounds. Making his whole weight 943½ pounds—a loss of only 66½ pounds. He was a cross of the Berkshire and Bedford—girted seven feet, and was five feet and about ten inches in length. His keeping till September last, was not high or expensive. Six bushels of potatoes and two of meal, with weeds and the spare milk of three cows, lasted him and two breeding sows of the same age, two weeks. They were fed but twice a day. The potatoes were boiled, mashed up in a large tub, the meal added and water enough put in to make it quite thin. In addition to this feed night and morning since September, he has had three quarts of corn at noon.

Your ob't serv't

WM. WATERMAN.

Cornish, Me., March 25, 1842.

Ornamental Trees.

[*From Colman's Fourth Report.*]

The cultivation of ornamental trees ought to be strongly pressed upon the farmers. "Put a tree down; it will be growing while you are sleeping." Many of them enrich the country; all adorn it, and thus essentially increase the value of an estate, and render the country more healthful as well as beautiful. Every place on a farm, where they can grow without injury to the crop, ought to be planted with trees. Timothy Walker, of Charlestown, Middlesex county, lately deceased, left a legacy of some hundred dollars to be expended in planting ornamental trees on some of the great roads in that town. This was a noble bequest; and places him among the benefactors of the community. It is an example worthy of imitation. A taste for the beauties of natural scenery cannot be too much cultivated among us. A taste for natural beauty is closely allied to a taste for moral beauty. The more attractive our homes are rendered, the more shall we love our homes; and the love of home is the parent of many kind and noble affections.

A taste for natural beauty is an original element of the mind. It may be strengthened, elevated, and enlarged by education; but it appears even in the rudest minds, and thus speaks its divine origin. I believe the perception of beauty exists in all animals; or why should they have been made so beautiful?

Natick in Mdidlesex Co., was the seat of the first christian mission to the Indians, where the benevolent Eliot, designated as the Apostle, sought to pour into the minds of these children of nature, benighted with the thick darkness of superstition, the heavenly rays of inspired truth. Eliot was followed by a worthy successor, Oliver Peabody. The Indians appreciated the blessings of the religion of peace and love which he taught them; and in gratitude for his services, these sons of the forest, to whom the trees seemed as their own kindred, came in a deputation bringing two elms, and asked leave to plant in front of the humble dwelling of the missionary these "*trees of friendship.*" This was in 1722, and these trees stood for ninety years, when one was rived by lightning, and the other seemed to perish through sympathy. When the successor of Mr. Peabody, Mr. Badger, was settled in 1753, the Indians offered the same token of respect and the same pledge of good will to him. These trees are still in full vigor, and remain as beautiful monuments of affections, which have gone out on earth, but are destined to be rekindled and burn with a purer flame.

Nature is every where prodigal of beauty, as if she would stimulate the passion for it to the utmost extent. Among the varied combinations of charming objects, which mingle in a rural landscape, the trees are preeminent. Sometimes rising in single cones so exact and symmetrical in their form, that they seem the perfection of art; sometimes spreading their umbrageous limbs in curves and lines of the most graceful expansion; sometimes bending their boughs to the earth loaded with golden and crimsoned fruit, and when the sun pours its bright rays upon them, presenting not an inapt image of that sacred bush where the divine presence wrapt itself in robes of fire; sometimes seen in long single lines skirting the traveller's path; sometimes in beautiful clumps and clusters, affording a grateful shade to the panting herds; at other times in the wide spread forest, shading a valley with their deep and black green; here again burnishing the mountain's side with their thick and matted foliage; now in autumn robed in the gorgeous vestments of more than oriental magnificence; and often in winter bending under their piled-up fleeces of snow, or glistening with matchless splendor when cased in ice and changed into a crystal forest of glass and diamonds; in all these cases how suited are the trees to charm the eye and delight the mind! Why should not the eye be charmed? Why should not the imagination be delighted? Why should we not take pleasure in the beauty of God's works? Why should we not do what we can to make our homes continually more and more beautiful; and to multiply and fill to overflowing these innocent sources of pleasure?

The country is full of poetic sentiment and religious monitions. The privileged inhabitants of the country should seek to rise above the mere drudgery of life, and make themselves familiar with nature in her ever varying and charming aspects. It will not hurt their industry, but it will cheer their toil to study the benevolence of the Creator in the perfection of all his works; and, I trust I may add without irreverence, to second his provision for the happiness of his creatures in multiplying every where around them the forms of beauty.

I hope I shall be pardoned for the enthusiasm which I may betray on this subject. Let those who think my remarks out of place, kindly pass them over. Penetrated to the depths of my soul with a sense of the beauty of nature and the charms of rural life, I am anxious that even the lowest laborer may have his toil alleviated, his self-respect quickened, and a sentiment of the dignity of his own nature breathed into his heart by a habit of observing and studying and enjoying the wonders and glories of the visible creation around him. I cannot think it difficult, under a just education, to awaken this sentiment and form this habit, even in the humblest minds; and what sources of gratification in such case shall we open to him, which the wealth of cities cannot purchase, and what motives to religious trust and joy shall we inspire, which written teachings can never impart. For what a prodigality of beauty is every where manifested in the natural world! Light itself is the perfection of beauty, and wherever it spreads its glittering robe, converts every thing which it touches into beauty. Take the great features of nature, the earth, the water, the sky, the sun, the moon, the stars; and what beauty is resplendent in every one of them. Take the vegetable tribes, the trees, the flowers and the verdant fields; take the animal creation, from the fairy bird that cleaves the liquid air with his burnished wing, to the pearl of exquisite brilliancy, that lies buried in the depths of the sea; and what a divine beauty shines out in the whole. Examine the minutest atom, which you can pick from the earth with the finest needle, the smallest flower that drinks in the refreshing dew, the least insect that floats in the sun-beam, the tenderest leaf that quivers in the breeze, and the vast continent with all its mixed and varied features of land and water, of valley and mountain, of prairie and forest; take the vast ocean, with its ceaseless heavings, and its deep cerulean waves, and the golden and crimsoned heavens at the rising and setting sun; look at nature, even in her decay, in the variegated glories of autumn, or reposing under her jewelled mantle in the death of winter, look at every thing in its individual form, or in its combinations, and even in objects which seem offensive or loathsome, or terrific,—all, all, is flooded with beauty. I have stood hour after hour, gazing at the mighty Niagara; and while I beheld in its tremendous movement, an image of the Divine Power, and in its ceaseless flow, a symbol of the Divine Eternity, yet in its deep torrent of living green, its glittering tresses, of a whiteness which the drifted snow does not surpass, and in the dazzling iris, spanning its troubled and foaming abyss, and girding, as it were, the lion's neck with a cincture of brilliants, beauty, ineffable beauty, pervaded and triumphed over the whole; and there, of all other places on earth, seemed to have fixed her shrine and to demand universal homage.

Agents for the Rochester Seed Store.

A general assortment of seeds, from the Rochester Seed Store, may be found at each of the following places. Subscriptions will also be received there for the "New Genesee Farmer and Gardener's Journal."

Buffalo.....W. & G. Bryant.
Lockport.....S. H. Marks & Co.
Albion.....C. W. Swan.
Brockport.....George Allen.
Scottsville.....Andrus & Garbutt.
Le Roy.....Tompkins & Morgan.
Batavia.....J. V. D. Verplanck.
Attica.....R. & N. Wells
Perry.....L. B. Parsons & Son.
Mount Morris.....K Sleeper.
Geneseo.....J F. & G. W. Wyman.
Canandaigua.....H. O. Hayes & Co.
York.....R. H French.
Geneva.....Van Brunt & Son.
Waterloo.....Abram Deuel.
Auburn.....T. M. Hunt.
Palmyra.....Hoyt & May.
Syracuse.....T. B. Fitch & Co.
Utica.....J. E. Warner.
Oswego.....D. Canfield.
Hamilton.....J. A. Mott.
M. B. BATEHAM.

Non-Resident Lands in Michigan.

THE undersigned respectfully announces to the public, that he has opened an Office in this city for the specific object of acting as a general Agent for the payment of Taxes on non-resident Lands, now, or hereafter to become due, in any of the Counties of this State and he will visit himself, or by a trusty person, each of the Counties, to obtain all necessary information upon the subject.

Persons wishing taxes paid in any of the Counties in Michigan, and forwarding to the undersigned the necessary amount of funds free of postage, together with an accurate description of their lands, may rest assured that their interests shall be scrupulously attended to.

His charges will at all times be reasonable, and proportioned to the services rendered.

The undersigned will endeavor to make himself thoroughly acquainted with the value of Lands in every part of the State that he may be enabled to give information to all enquirers; and if desired, will undertake the sale of the same.

He begs leave most respectfully to refer as to character, and capacity to redeem the pledges above given, to the annexed certificates. J. L. WHITING.

Detroit, March 4, 1840.

Detroit, March 5, 1840.

I think such an office as is proposed by Dr. J. L. Whiting highly necessary for the convenience of the community, and that he is exceedingly well qualified by long residence in Michigan, much knowledge of the country, strict integrity, and correct business habits, for the duties of the proposed Agency. C. C TROWBRIDGE,

Pres't Bank of Michigan

I concur fully in the sentiments and opinions expressed in the above note of Mr. Trowbridge. Detroit March 5, 1840.

WM. WOODBRIDGE, Govern r of Michigan.

I have been acquainted with Dr. J. L. Whiting for many years, and fully concur in the views above expressed by Mr. Trowbridge. E. FARNSWO TH, Chancello .

Dr. J. L. Whiting is in my judgment fully compe ent to discharge the duties of the proposed Agency, and I cheerfully recommend him to the public.

E. P. HASTINGS, Auditor General

From a long and intimate acquaintance with Dr. J. L. Whiting, I am happy to testify my full concurrence in the above statements. THOMAS ROWLAND,

Secretary of State.

Land office, Detroit, March 5, 1840.

Having long known Dr. J. L. Whiting, I most cheerfully concur in the above recommendations, and would further tender to him any facilities th s Land Office may afford in aid of the objects of his advertisement.

J. KEARSLEY, Receiver.

I have been intimately acquainted with Dr. J. L. Whiting for several years, and fully concur in the sentiments above expressed, in relation to him.

Z PITCHER, Mayor of Detroit.

Such an office as Dr. Whiting proposes, will be of great utility and convenience to non-residents; and I am happy to assure the public, that he is every way qualified, and can be fully confided in. ROBERT STUART,

Treasurer of Michigan.

Having known Dr. Whiting for many years, I fully concur in the above. D. GOODWIN,

U S. Attorney.

To the above ample testimonials in reference to the capacity, industry and integrity of Dr Whiting, I take pleasure in adding my full and cordial concurrence; and heartily commend the proposed Agency for its convenience and usefulness. JOHN A. WELLES,

Cashier Farmers & Mechanics' Bank.

MULBERRY TREES ON SHARES.

AS there is every prospect that the demand for the finest kinds of Mulberries for silk will be greater next spring than the supply, I now offer to furnish 200,000 very fine trees of the Alpine, Etata, Broussa, and Multicaulis Mulberries, to be cultivated on equal shares, one half the trees produced therefrom to be delivered to my order in the spring of 1843. The expense of packing and transportation to be paid by the person desiring them The putting and delivery to a vessel or Transportation Line, will cost $2 per thousand, and any person desiring to contract as above, will, on remitting $2 per thousand to cover this expense, receive forthwith the number he may desire.

WM. R. PRINCE.

Linnean Botanic garden and Nurseries, Flu hing, N. Y.
April 18th, 1842.

ATKINSON FEMALE SEMINARY.

MISS ATKINSON, having removed to the city is prepared to receive a few more scholars into her family as boarders—competent teachers are provided and all branches of study pursued o give a finished education Parents may rest assured that every attention will be paid to the moral and physical, as well as to the intellectual education.

Terms are forty dollars per quarter of 11 weeks, including tuition, board, washing, fuel and lights, payable in advance

The following branches are charged extra—French, Spanish, German, Greek, Latin, Music and Drawing. Seminary on Canal street. May 1st, 1842.

BEEBE'S STRAW CARRIER.

THE subscriber having sold the right of his Patent Straw Carrier in the counties of Genesee, Livingston, Ontario, Wayne and Orleans, in the state of New York, and in the counties of Huron, Sandusky, and Seneca, in the state of Ohio, all persons wishing the above machines can be supplied in Orleans Co., N. Y., by Philip Inman of Clarendon; in Genesee Co., N. Y., by Laurens Cossitt at Riga Centre; and in the counties of Ontario and Livingston by *Daniel C. McVean* at Scottsville, Monroe Co. Those wishing the above machines in any other part of the United States, will please apply to the subscriber. All persons wishing the above machines before the first of October next will do well to call soon. County and state rights on reasonable terms. URIAH BEEBE.

April 1st, 1842. Riga, Monroe Co., N. Y.

RECOMMENDATION.

The undersigned having seen or used Uriah Beebe's Patent Straw Carrier, believe it to possess much merit as a labor saving machine—it performs the work of separating the straw and chaff from Wheat, Oats and Barley, with the smallest amount of power, does it cleanly, and is durable, simple and cheap. Possessing, as we conceive, all those qualities in an eminent degree, we cheerfully recommend it to the public.

Wm. Pixley, Chili,	R Harmon, jr. Wheatland.
W. H. Smith, Caledonia,	Wm. Garbutt, "
Samuel Cox, Wheatland,	George Sheffer, "
James Cox, "	William Reed, "

The Imported Horse Alfred,

WILL stand for mares this season, 1842, at the following places, viz: At George Fordon's, near Geneva, on Saturday, Monday, and Tuesday, April 30, and May 2, 3, 14, 16, 17, 23, 30 and 31, and June 11, 3, 14, 25, 27 and 28, and July 9, 11, and 12.

At John Lapham's, Macedon, on Friday, Saturday and Monday, May 6, 7, 9, 20, 21, 3, and June 1, 4, 6, 17, 18, 20, and July 1, 2, and 4.

At Hopewell Centre, on Wednesday and Thursday, May 4, 5, 18, 19, and June 1, 2, 15, 16, 29, and 30.

At A Gunn's Inn, East Bloomfield, on Tuesday, Wednesday and Thursday May 10 11, 12, 24, 25, 26, and June 7, 8, 9, 21, 22, 23, and July 5, 6, 7.

TERMS—Ten dollars each mare, for the season, to be secured by approved notes payable on the 1st of December. Should any of the mares prove not to be with foal, the owners to have the privilege of putting them the next season, if the horse remains in this region or in the event of his removal, to have one half the amount returned.

THOMAS WEDDLE,
May 1, 1842 GEORGE FORDON.

The Young Lion of Monroe,

WILL stand the ensuing season at the following places: Wednesdays and Thursdays at the stable of the subscriber in Chili; Fridays and Saturdays at the stable of P. G. Jones, (National Hotel,) Rochester.

The YOUNG LION will be five years old next June his color is dark gray, he is sixteen hands high and weighs over twelve hundred; he took the second prize last fall at Rochester at the County Agricultural Fair; was sired by the Lion of Monroe, who was sired by Old Blucher; Old Blucher was sired by Old Duroc; Young Lion's dam was sired by Old Florizell, his grand dam a blooded mare brought to this country by Col. Fitzhugh. Some of the Young Lion's stock may be seen on the farm of the subscriber.

The season will commence the 1st of May, and end the 1st of July. TERMS, ten dollars to insure a foal. Pasture will be provided for Mares from a distance. All accidents at the risk of the owners. Persons putting mares and parting with them before foaling time, will be held responsible for the services of the horse. J. K. BALLINTINE.

Chili, April 25, 1842.

We the undersigned have examined Mr. Ballintine's horse the Young Lion of Monroe, and think him decidedly one of the best horses in the county.

G. C Baker,	Stephen Charles,	William Charles,
Mathew Witbeck,	A. R. Shaw,	Jas W. Sawyer,
John Parsonson,	P. G Jones,	Geo. Charles,
	B. M Baker,	Wm. Tone

Rochester, April 23, 1842.

Young Alfred,

WILL stand for mares this season, 1842, at the following places, viz: At John Lowry's, Chili, Tuesdays, Wednesdays, Thursdays and Fridays, the 3d, 4th, 5th, 6th, 17th 18th, 19th, 20th, and 3 st of May, and 1st, 2d, 3, 14th, 15th, 6th, 7th 28th, 29th and 30th of June, and 1st of July.

At the National Temperance Hotel, Rochester, Saturdays, and Mondays, from the 7th of May to the 4th of July

At H Paddock's, Penfield Tuesdays, Wednesdays, Thursdays and Fridays, 10th, 11th, 12th, 13th, 24th, 25th, 26th, 27th May; 7th, 8th, 9th, 10th, 21st, 22d, 23d, 24th June; 5 h, 6th, 7th and 8th July

Young Alfred is a fine bay, was sired by my imported horse Alfred; Alfred was got by Strickland's King Alfred, his dam by Stubbs' old horse, grandam by Frank's Volunteer, gr. gr. dam by Harrison's horse of Sketeneck. Stubbs, horse was by Dunsley's old horse, dam by Ouston's horse' Dunsley's horse was by Agar's old Dart, dam by old Rainbow; Frank's Volunteer was by Milner's old Volunteer; King Alfred was bred by Sir George Strickland, and was by Providence, dam by Peerless, &c.

TERMS—Ten dollars each mare to insure, payable on the 1st December next. THOMAS WEDDLE.

May 1st, 1842.

ASPARAGUS AND RHUBARB ROOTS, two years old, for sale low, at the Seed Store

GARDEN HAND GLASSES, very useful articles for protecting and forwarding cucumber, melon, tomato, and other plants; price $1,25 each, $12, per dozen.

SERICON; a treatise on the art of rearing silk worms, and conducting filatures, by J. Clark, Philadelphia. Price 50 cents. [May 1, 1842.] M. B. BATEHAM.

FOR SALE.

A pair of fine large MARES, very powerful in draught, and work together perfectly even. They are excellent travellers, and true and right in all respects. One of them is in foal to imported Alfred.

The full blooded Durham Bull, American Comet, sired by Imported Rover, dam imported Primrose, a very superior animal.

Also, the full blooded Durham Cow, Matilda, and Heifer-ness Cow, Brilliant. THOMAS WEDDLE.

Rochester, 27th April, 1842.

ROCHESTER PRICES CURRENT.

CORRECTED FOR
THE NEW GENESEE FARMER MAY 1, 1842.

WHEAT,	per bushel,	$ 1,12½ a	$ 1,15
CORN,	"	44	47
OATS,	"	28	31
BARLEY,	"	44	50
RYE,	"	53	56
BEANS, White,	"	75	100
POTATOES,	"	25	28
APPLES, Desert,	"	50	56
FLOUR, Superfine,	per bbl	5,25	5,50
"	Fine, "	4,75	
SALT,	"	1,25	
PORK, Mess,	"	8,00	9,00
"	per 100 lbs	2,75	3,00
BEEF,	per 100 lbs	3,50	4,00
POULTRY,	per lb	7	
EGGS,	per dozen,	8	9
BUTTER, Fresh	per pound	12½	15
"	Firkin, "	10	12½
CHEESE,	"	5	6
LARD,	"	7	8
TALLOW, Clear,	"	8	
HIDES, Green	"	4	4½
PEARL ASHES,	100 lbs	5,00	
POT,	"	5,25	
WOOL,	pound,	30	40
HAY,	ton,	11,00	12,00
GRASS SEED,	bushel,	1.50	1.75
CLOVER SEED,	"	5.50	6.00

REMARKS.—Wheat has advanced a trifle since our last—other grain remains dull. Fresh butter is in great demand; some lots have sold as high as 18 to 16 cts. Lard also has advanced.

NEW YORK APRIL 27th.—Genesee Flour remains dull.—A sale is reported from the boat of 200 bbls at $5,87½, not in good order, and other parcels can be had from stores at $5,94. For fresh ground these prices would not be accepted. Sales of New Orleans Flour are going on at $5 75 for good lots; 5000 bushels New Orleans Corn sold at 58 cts.

BUFFALO APRIL 28th.—There is more demand for wheat here and a much better feeling existing in the market than we have observed since navigation opened. Millers pay $1 06 readily Flour is selling by the cargo at $5.

CINCINNATI, APRIL 22.—Flour—Sales were made yesterday at canal at $4,12½ per barrel, being a small advance on last sales 800 bbls. City Mills have also been sold at $4, 12 1-2 per barrel.

Wheat at Chicago is 90 cts. in eastern funds or coin,—Flour at $4,50.

During the first three days of canal navigation, there were shipped at Rochester, 12,500 barrels flour and a corresponding quantity of other articles.

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Press-work done for Booksellers on the Power-Press which prints the "New Genesee Farmer."